

AMERICAN GAS ASSOCIATION

Monthly

MARCH
1954



If you're a good cook, a good housekeeper, a wonderful homemaker...

You might be the next Mrs. America and win a New Freedom Gas Kitchen*



THE judges are all homemaking experts—the kind who believe that a tender pie-crust is to be prized far above long eyelashes—the kind who think that a woman's most beautiful when she keeps her family happy. So get out and enter this contest, all you wonderful, wonderful housewives. Just see what you'll win!

1. A fully automatic "CP" Detroit Jewel Gas range, and what an automatic jewel it is! Oven, broiler and top burners all light without matches. Oven turns itself on and off automatically. There's even an automatic timer. And like all Gas ranges, your "jewel" cooks best by every test. (Pg. 67)

2. A completely noiseless Servel Gas refrigerator . . . with the amazing new ice-maker that makes ice cubes without trays and puts 'em in a basket automatically. Won't your husband love that!

3. & 4. A Caloric automatic Gas clothes dryer. You also get an automatic washing

machine. In minutes you can have a whole load of laundry washed, *dried* and ready to put back on the beds or the baby. Just think of the time and work you'll save.

5. An automatic John Wood Gas water-heater to make hot water worries a thing of the past. The model shown looks just like a cabinet, yet it actually delivers tankful after tankful of hot water 3 times faster than the same size heater run by any other all-automatic fuel.

6. A Bowser Incineror Gas incinerator (not shown). It incinerates all your trash as well as all your garbage, takes anything from a ham bone to vacuum cleaner

sweepings. You'll wonder how you ever did without it.

7. An American Kitchens sink with cabinets above and below.

Robertshaw-Fulton temperature controls will be featured exclusively in this contest.

All these and more go to the lucky, lucky Mrs. America to be—she might be you! But whether you enter the contest or not, you're always going to be "Mrs. America" to your own family. Maybe Dad would like to offer you a special prize . . . at least a part of this dream kitchen . . . and it will cost less than you think. See the attractive buys in Gas appliances at your Gas company or Gas appliance dealer's.

*Reg. A.G.A.

Only **Gas**  does so much so well!

GAS...THE MODERN FUEL FOR AUTOMATIC COOKING...
REFRIGERATION...WATER-HEATING...HOUSE-HEATING
...AIR-CONDITIONING...CLOTHES-DRYING...INCINERATION.
AMERICAN GAS ASSOCIATION

● This full-page A. G. A. advertisement on the Mrs. America contest appears in the February and March issues of Better Living



Debbie Reynolds in New Freedom Gas Kitchen featured in RKO comedy "Susan Slept Here" co-starring Dick Powell

PRESIDENT EACKER, in a recent letter to top executives of member companies, referred to articles in the A. G. A. Monthly telling how a few companies are "living" the Gas Industry Development Program. . . . Have you read the eight major articles on the Action Program that the Monthly has published to date? Here is the complete list. May 1953—"Launch Gas Industry Development Plan" . . . September—"Market Management by Hunch or Fact?" . . . October—"Our Future Begins on Main Street" . . . November—"Upgrading Is the Word in Wisconsin" and "Market Research Removes the Blindfold" . . . January 1954—"15 Ways to Speed Gas Industry Development" and "Operation Mrs. America" (sales upgrading program in Brooklyn) . . . February—"Research Unveils New Range Units." . . . The Action Program is vital to the future of the gas industry. Consequently, we shall strive to continue to keep you posted on its development from month-to-month. But we need your cooperation and assistance. In Mr. Eacker's words, "If you have similar stories (on Gas Industry Development)—big or little—why not tell us about them, so that others in turn may benefit from your experience?"

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STRAWS in the wind

● Designed to give you a panoramic view of industry

FACTS FOR THE FUTURE

Are we letting fancies, fallacies and first impressions cloud the facts? Or are we getting the story of a modern gas industry across to the public?

The power of facts is illustrated this month by the A. G. A. survey of gas all-year air conditioning owners. We have known for some time that many women have a basic resistance to the idea of air conditioning. Now, however, we have proof based on personal interviews with homemakers that those same women find air conditioning desirable and even essential once they have lived with it in their own homes.

Facts can be powerful allies in building our future. Consider, for example, the A. G. A. school education program, "Natural Gas—Science Behind Your Burner". All materials in the kits—booklets, teachers' guides and film strips—are factual and have been worked out in

close cooperation with educational authorities. Here is an unexcelled opportunity to acquaint the next generation with the vital role that gas plays in the modern economy. School principals themselves have requested these kits. Many companies have canvassed all the schools in their territories.

A veritable storehouse of facts telling the story of gas is available from A. G. A. Booklets such as "A New Look at the Gas Industry", "The Story of Gas" and background materials such as "Natural Gas—Your Miracle Maker" all are at your service.

Let's put the facts to work. If you have not already done so, why not check to be certain that your company is making maximum use of all the facts about gas—nature's modern fuel.

MAJOR SALES VICTORY

The 1953 dollar sales of commercial gas appliances, spurred by aggressive promotions of the A. G. A. Commercial Cooking Bureau, increased 24.8 percent over 1952. Dollar sales of commercial electric appliances rose only 12.7 percent over a year ago. Sales breakdown for gas is: commercial ranges up 26 percent, broilers up 42 percent, griddles up 20 percent, and fryers up 14 percent. Figures are from GAMA and NEMA releases.

ALL-OUT FOR GAS

Long Island Lighting Company has opened an all-out campaign to push gas sales this year. Architects, builders, plumbers, appliance dealers and sheet metal contractors have been invited to view latest gas developments at the utility's "1954 Blue-Flame Progress Exposition" on March 2 and 3. Also under way is the "Employee Blue Flame" sales lead contest with substantial cash awards.

DYNAMITE FOR SALES

New Orleans Public Service Inc. is sponsoring "It's Dynamite", a cooperative program built around the idea that an appliance demonstration by a qualified home economist right on the dealer sales floor is a sure-fire way of selling appliances. Vivian Marshall, home service director, told the A. G. A. Workshop that in 1953 her section gave dealers about 600 leads for major appliances, 30 percent of which were sold.

ORGANIZED PR

A. G. A. Public Information Committee, under a mandate from the Board of Directors, is planning an organized program of public relations in coordination with INGAA and GAMA programs. First new activities being considered are A. G. A. regional PR workshops and a PR bulletin for exchange of ideas between member companies.

KNOW YOUR COMPANY

Employee publications are in a strategic position to describe and interpret company activities. An excellent example of what can be done is the current feature series "Gas Men at Work" in "The Gas Line" published by Union Gas Company of Canada Ltd.

BUDGET GAS HEATING

The Cincinnati Gas & Electric Company and The Union Light, Heat and Power Company have adopted a simple budget plan to help Greater Cincinnati gas customers level off their winter peak heating bills.

PROMOTION HIGHLIGHT

Mark August 20, 1954 on your promotion calendar. On that date the A. G. A. New Freedom Gas Kitchen Bureau will release to member gas companies the official gas kitchen-laundry film of National Association of Home Builders. Four-way tie-ins will be provided during National Home Week through TV, a leading national magazine, local model homes and newspaper publicity. Story on page 30 (a PAR activity).

MRS. AMERICA CONTEST

A broad round up of successful gas company campaigns in support of the Mrs. America contest will be published by the A. G. A. Promotion Bureau following the national finals later this spring. Numerous requests have already been received from gas companies for Erna Snyder, current Mrs. America, to appear at state and local finals (a PAR activity).

"PROBLEMS" SERVICE

Are you looking for answers to specific problems in the purchasing, stores or stores accounting fields? If so, you are encouraged to submit your questions to Carl H. zur Nieden, Philadelphia Electric Company. Mr. zur Nieden is chairman of the "Problems" Subcommittee of the A. G. A. Purchasing & Stores Committee.

REMEMBER THE STOCKHOLDER

"Financial World" Magazine reports that American corporations are making significant progress in the development of well-rounded shareholder relations programs. Signaled out for attention are the approved appearance, contents and readability of interim earnings statements, and the increased use of dividends inserts, post-meeting reports, and "welcome letters" to new stockholders.

MERCHANDISING VALUE

Bryant Heater Division has ordered 5,000 reprints of A. G. A. water heater ads appearing in the "Saturday Evening Post" featuring the company's product (see inside front cover February 1953 Monthly). The copies will be mailed to salesmen and dealers in a package along with the company's promotion materials (national advertising is an A. G. A. PAR activity).

EMPHASIS ON AUTOMATIC

Milwaukee Gas Light Company since 1950 has based all its range campaigns on the promotion of only automatic gas ranges. Of the 2,331 gas ranges the company sold in 1953, 766 or 32.9 percent featured automatic ignition and 459 or 19.6 percent featured automatic ignition with clock control.

QUALITY COMES FIRST

The major appliance industry must realize the value of selling quality before price, H. E. Clary, assistant general manager, Bryant Heater Division, told the midwinter sales conference of Pennsylvania Gas Association last month. Current practice of stressing the price leader or stripped-down model will ultimately "result in suicide," he believes.

REPORT FROM HOLLYWOOD

Gas appliances were represented in 561 TV films, TV spots, publicity and advertising photographs during 1953—nearly a 100 percent increase over 1952, according to the A. G. A. Hollywood Bureau. Gas appliances also appeared last year in a total of 19 major motion pictures (a PAR activity).

ORCHIDS TO INGAA

Congratulations are due to Independent Natural Gas Association of America for the progress its Public Information Program is making in telling the story of the gas business. A. G. A. member companies are invited to send representatives to the second INGAA Workshop Conference in New Orleans on March 29.

KITCHEN MIRACLES

New Freedom Gas Kitchen tie-ins are accomplishing sales miracles in California's Foothill Manor, 159-unit residential development. According to Southern California Gas Co., 75 of the all-gas kitchens were sold in the first ten days the homes were offered.

PHOTOGRAPHIC SERVICE

Project—to increase the use of gas industry film materials. A. G. A. Promotion Bureau, working with a leading photo supply house in New York, can obtain visual equipment for member companies at 20-25 percent discount plus professional advice on what equipment is most suited to company needs (a PAR activity).

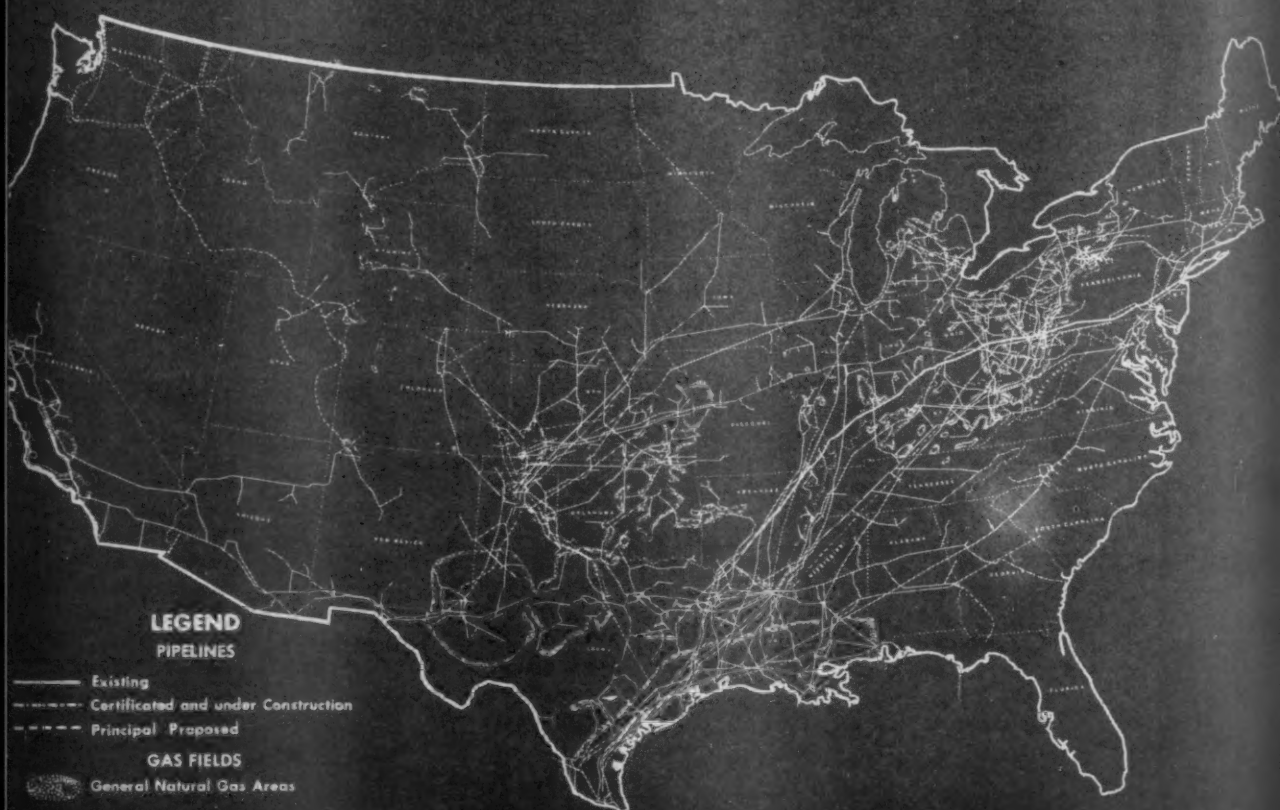
ICE-MAKER ACCEPTANCE

Three out of five buyers who chose Servel refrigerators in the past 12 months selected "automatic ice-maker" models despite their higher price, the company reports. According to W. Paul Jones, president, "the day may not be far off when ice trays will be collectors' items like whale-oil lamps and spinning wheels."

LABORATORIES GROWTH

Completion of a 17,800 square foot north wing building addition to the Cleveland Laboratories later this year will provide the industry with badly needed room for testing central heating equipment, which continues to account for more than 50 percent of approval test operations.

Interconnected pipeline systems



NATURAL GAS PIPELINES IN THE UNITED STATES

Should the nation's gas pipeline networks be interconnected to prevent service interruptions during emergencies?

By CARL T. KALLINA

Chief, Division of Gas Certificates
Federal Power Commission
Washington, D. C.

● Views expressed in the accompanying article are the author's and should not be attributed to the Federal Power Commission or American Gas Association.

Mr. Kallina is an engineer whose entire employment since graduation has been in connection with the gas industry. He has been a member of FPC staff since 1941. He is its oldest employee in length of service engaged in the commission's function of issuing certificates of public convenience and necessity for the construction and operation of natural gas pipelines. He has participated in some form or other in practically all of the important applications processed by FPC. Since 1951, Mr. Kallina has been chief, Division of Gas Certificates—The Editors.

It is obvious that interconnections between companies are most desirable in the public and private interests. Consideration as to why this may be made is clear that the best approach for me would be to try to plant seeds for further thought, confident that these seeds would bear fruit in abundance in the minds of you people engaged directly in this great business of building and operating gas pipeline systems.

While these remarks are my own, it may be of interest to see what the attitude of the Federal Power Commission is with respect to emergency interconnections. In the 1952 Annual Report to the Congress of the United States, the FPC made certain "Legislative Recommendations". Two of these clearly point out the attitude of the commission itself towards the desirability of emergency interconnections.

"(1) *Natural Gas Act—Emergency Interconnections.*—It is recommended that a new subsection (i) be added to Section 7 of the Natural Gas Act giving authority to the Commission, similar to that conferred by Section 202 of the Federal Power Act, to require natural gas companies to interconnect their facilities with others engaged in the sale and distribution of natural gas and to sell or exchange gas with such persons, together with authority to prescribe the terms, arrangements, and conditions for such interconnections and the compensation payable therefor.

"(2) *Natural Gas Act—Voluntary Interconnections.*—It is recommended that a new subsection (j) be added to Section 7 of the Natural Gas Act permitting voluntary interconnections of natural-gas facilities and their maintenance on a permanent basis for emergency use upon authorization by the Commission, and under such circumstances conferring a jurisdictional exemption. Such a provision is now contained in Section 202 (d) of the Federal Power Act."

Use of the term "emergency" in my discussion is not limited to the strict sense of the word implying only unforeseen circumstances requiring immediate action, such as a line break or other physical failure. "Emergency" is also used as implying measures for taking advantage of unforeseen economic benefits and most important as a part of a general plan of cooperative operation for meeting situations involving expected but extraordinary circumstances.

Presented at A. G. A. Gas Supply, Transmission and Storage Conference in New Orleans, La., March 4 and 5, 1954.

Let us concentrate initially on present conditions in the industry. To summarize quickly, prices are on the rise both in cost of new gas purchased as well as in construction and operation of pipelines, and market demands generally exceed the ability of the industry fully to meet all demands.

Accordingly, situations in which the existence of emergency interconnections are desirable may be summarized as follows:

(1) *To maintain service during a line break or other unforeseen physical interruption of facilities.*

The nightmares of gas distributing companies are bound to include as a feature attraction the probability of consumer outages due to discontinuance of supply. Every distribution system of consequence takes every precaution to design and operate its system so that in the event of an accident, it can physically rearrange its operations promptly and minimize the number of consumers shut off. For this reason alone, it appears incumbent on pipeliners to take every reasonable measure necessary to provide connections wherever feasible in order that interruption in pipeline supply be minimized to the fullest extent possible.

Consideration of the possibilities of connections to provide the safeguards against outages should not be confined to the simple project of adjacent lines of two companies where pressure conditions and other operating factors are such as to make it readily possible for one to deliver gas to the other with only the opening of a valve. Situations prevail where only one of two adjacent lines can physically deliver gas to the other. The return of such gas may possibly be more practicable at another location where operations are compatible to effect either the return or the initial delivery of gas in the event of an emergency on the other line.

Use of such arrangements has proved feasible in many cases. One specific example involves a series of interconnections between two companies where emergency deliveries at the eastern end are returned in the southwestern producing areas, as circumstances dictate, to the advantage of both. Furthermore, deliveries and return of emergency gas need not be made directly by physical connection between the participating companies.

Many emergencies, particularly during the war years, were successfully reduced by so-called displacement. That is, third and even fourth or fifth parties having mutual operations in an area can exchange gas by having the company with gas available take on a part or all of an obligation of the company in trouble with the latter cutting back on its normal obligation. My description of such arrangements is not nearly as complex as the details of actually working out such plans. To bring them about when the emergency is upon you is most difficult unless prior planning is made so that dispatchers and other operating personnel are prepared and necessary legal procedures, such as regulatory approvals and contracts, have been taken care of in advance.

(2) *Emergency connections are desirable to physically and most economically maintain adequate supplies of gas from producing areas.*

Conservation of the nation's natural gas resources is of paramount interest today. Situations may exist whereby the production in a given area is insufficient to maintain normal operations. On the other hand, the production available may

also be in excess of pipeline requirement elsewhere. The solution is obvious—the first company by exchange arrangement makes up its deficiency while the second is able to satisfy its producers and maintain rateable takes.

Conservation measures have substantially reduced the waste created by flaring of gas, but there is still a substantial volume of gas being flared. The figures for Texas during the month of September 1953 alone were in excess of 20 million Mcf. Certainly, with careful planning and the use of interconnections, including multi-company displacement, further substantial reductions in this wastefulness should be afforded.

The feasibility of such programs has been enhanced many fold in the past decade by virtue of the substantial growth of underground storage programs. About the only limitation on the ability to take excess flare gas is pipeline capacity, which could almost miraculously be found through careful planning of interconnections and displacements. That is not an idle dream. Actual cases can be cited in which, through such interconnections and displacements, substantial volumes of gas were made available for storage and other uses at locations remote from the original source. Such gas sold to the storage company for its own use or stored for the account of other companies, as will be discussed more fully, is another reason why interconnections require proper planning.

"Spot purchase" gas is usually attractive to a pipeline company because of its lower cost. Unfortunately, "spot" gas may be available to the most convenient pipeline at times when it cannot be utilized. It is readily conceivable, however, that more of that gas could, by the routes described herein, find its way to market or storage.

Economic limit

We know that many long-term gas purchase contracts with producers contain provisions whereby payment must be made for specified volumes whether or not taken, the so-called "minimum or take or pay for 'provisions' ". True, there is usually a credit built up for gas not taken but paid for, providing the gas is taken in a reasonable period of time. This situation, however, may create a serious obstacle in further negotiations for gas supplies. On occasion, it has worked to the disadvantage of companies with programs for expansion because further expansion requires more gas reserves. There is an economic limit beyond which a company cannot commit itself as to the payment for gas which may not be taken.

Surely, temporary emergency measures, and I consider this latter illustration an economic emergency, can be taken to alleviate these problems. Here again, I know from actual experiences in participating at the regulatory end in such arrangements, that this situation has occurred and been met most satisfactorily.

(3) *Interconnections are proving invaluable in maintaining high capacity operation.*

It is axiomatic that the higher the rate of capacity utilized, the lower the unit cost. High capacity operation has been achieved with success by disposition of gas on an interruptible basis. The weakness of this treatment has always been the fact that increased firm demand requires increased firm capacity with a corresponding increase in volumes available for sale on a non-firm basis. Higher costs of construction and of purchased gas are creating a further problem where, because of these price factors, the increase in capacity is not economically justifi-

fied and non-firm gas cannot readily be sold at a satisfactory profit. The solution to this problem would be interconnection between pipelines coupled with greater utilization of underground storage.

Arrangements of this type have already been effected and several others are in various stages of process. A pipeline having its own storage reservoir can meet continued growth of firm market by injection of off-peak gas into storage for peak requirements. Incremental pipeline capacity construction may thus be materially reduced and revenues obtained for the gas theretofore dumped should be more compensatory.

This condition is not, however, as simple as it sounds. In the first place, all pipelines do not have their own storage facilities where needed. Secondly, gas is required to develop a storage program.

To meet the first problem, cooperative arrangements between pipeline companies and storage owners have resulted by one means or another, in making available storage space to those otherwise not so blessed. To fill these pools with gas quickly, then becomes the main problem. The storage owner and the participating pipeline company are not always able to meet the storage gas requirements from existing sources. The problem then is, shall they increase main line capacity for this purpose or is there another and better method available.

A better method may be available, viz., the utilization of interconnections. Other pipelines having surplus off-peak capacity by direct sales through interconnections and displacements may be prime source for the necessary gas. Another procedure is the relatively new practice whereby pipelines maintain high load factors on their sales by having excess firm gas stored for the account of customers subject to redelivery as needed. The delivery and redelivery is executed primarily through displacement minimizing to a considerable extent construction of additional transmission pipeline facilities for storage operation.

(4) *Pipelines should be designed with emergency interconnections.*

Having already touched upon the possibilities of savings in investment and operation by avoiding capacity construction to meet additional requirement, it is not inconceivable that initial design should also include similar plans. I know of no initial construction program which has included, as a part thereof, possible utilization of excess facilities through coordination of operations with other pipelines. It does not make sense for two or more pipelines starting from the same area, or in part traversing the same area, or serving the same area each to go to the expense of duplicating facilities. No individual company would duplicate its own facilities unnecessarily and there appears to be no sound reason for neighbors not to avoid duplications in facilities among themselves.

Thought should be given to the probability of providing further economy in pipeline construction by means of staggered installations; that is, one system installs capacity one year and the other the next so that during the two or three year period when loads are being developed, particularly in new areas, higher utilization and less expenditure on the combined operations may be possible.

There are any number of possibilities which can be achieved by sound engineering design.

(5) *Interconnections are vital to national defense.*

None of us who participated in the hectic sessions of de-

(Continued on page 42)

Record gas financing in '53

Volume of new financing by straight gas utilities and pipeline companies established a new record during 1953 according to preliminary compilations of American Gas Association. The total amount of financing aggregated \$1,049 million as compared to the previous high of \$909 million in 1951. Common stock issues of \$160 million were more than double the previous high set in 1950, while preferred stock issues totaled \$91 million. Total new contractual debt issues were \$798 million of which \$573 million represented bonds.

This record expansion occurred despite significant changes in the money market during the year. The cost of debt capital started the year on an upward trend and climbed sharply until mid-year. During the latter part of the year, further slight increases in the average cost of new capital to the industry were caused by large flotations of debt issues by transmission companies, which traditionally pay higher interest rates. Table I shows the weighted average cost to utilities and pipelines for bonds and debentures during the past three years.

Changes in cost of capital affected markedly the proportions of total financing derived from various types of issues in 1953. Many utility stocks were quoted during 1953 at relatively high historical levels; the simultaneously increased cost of obtaining debt capital stimulated placements of equity issues at relatively favorable terms to the industry. The proportion of financing represented by common stock was the highest attained during the postwar period (see Table II).

The increase in financing corresponds with previous A. G. A. estimates of trends in new construction activity during 1953. It had previously been forecast that construction expenditures during the year would aggregate \$1¼ billion, exceeding by 15 percent the total expended in the previous year. Although the volume of financing activity is closely

TABLE I—AVERAGE PERCENT COST OF STRAIGHT GAS UTILITY AND PIPELINE BOND AND DEBENTURE ISSUES, 1951-1953

	1953	1952	1951
Weighted Average Cost of Bonds	4.18	3.78	3.37
Weighted Average Cost of Debentures	4.44	4.28	3.95

TABLE II—PERCENTAGES OF NEW STRAIGHT GAS UTILITY AND PIPELINE INDUSTRY FINANCING, 1946-1953, BY TYPE OF ISSUE

	1953	1952	1951	1950	Annual Average 1946-1949
Common Stock	15.3	8.5	6.0	8.9	8.3
Preferred Stock	8.7	12.3	8.1	9.1	3.5
Debt	76.0	79.2	85.9	82.0	88.2

TABLE III—VOLUME OF STRAIGHT GAS COMPANY FINANCING, 1946-1953, BY TYPE OF ISSUE
(Millions)

	1953	1952	1951	1950	Annual Average 1946-1949
Total	\$1,049	\$756	\$909	\$756	\$430
Common Stock	160	64	54	67	36
Preferred Stock	91	93	74	69	15
Debt	798	599	781	619	379
Bonds	573	343	562	387	276
Debentures	179	70	94	99	53
Other	46	185	124	132	50

related to construction expenditures, and provides a relatively valid indicator of trends, precise analyses are not feasible since no data are available on retained earnings and depreciation accruals utilized for construction. Total financing by straight gas companies is shown in Table III.

The financing discussed above and presented in the accompanying tables, excludes the issues of combination companies which distribute electricity as well as gas. During 1953 these combination companies issued \$951 million of securities which exceeds by 2.8 percent the previous high established in 1949 and

exceeds the 1952 total by 24 percent. While the need for such financing is occasioned to a considerable extent by gas operations, there is no accurate method of determining relative proportions required for the respective utility services.

Also excluded from the accompanying tabulations are holding company issues aggregating \$199 million in 1953. Such issues reflect the financing activity of all holding companies with subsidiaries transporting or distributing gas. In many cases certain subsidiaries also sell electricity, so that the proportions of new financing attributable to gas requirements are once again not determinable.

FOR ONLY A
PENNY
A LOAD

Hard-hitting campaigns build strong

A GAS
CLOTHES
DRYER
SAVES HOURS
EVERY
WASHDAY

dealer support for the

Success story of the gas clothes dryer

The automatic gas clothes dryer—one of the newest, most glamorous and most exciting gas burning appliances—is receiving star billing by the Columbus and Pittsburgh Groups (non-merchandising) of the Columbia Gas System.

So successful were the groups' dryer promotions last fall that they are being repeated again in 1954.

J. G. Berwanger, business promotion manager, The Ohio Fuel Gas Co., Columbus, Ohio, has informed the MONTHLY that the Columbus Group's hard-hitting drive in September and October last year sold 2,383 gas dryers on its lines. A total of 1,792 gas dryers were installed for dealers by The Ohio Fuel Gas Company without charge. These figures compare favorably with the 1952 campaign totals of 1,601 gas dryers sold with 1,061 being installed free of charge. Fifty million advertising impressions were made on the minds of Ohio customers during the eight-week period. In 1952 there were only four gas dryers with distribution in Ohio. There were 19 in July 1953 and 22 by the end of the year.

During the eight-week campaign, The

Ohio Fuel Gas Company advertised gas dryers in 150 newspapers, on its 11 radio station network and on three TV stations. Special open houses were put on for dealers. Home service follow-ups were made for each dryer installed.

A special report on the results notes that "the full story of this campaign cannot be told by sales figures alone. The enthusiasm generated in the dealer organization, and the acceptance built in the minds of our customers during this campaign will carry through for many months to come."

A special report from Robert H. Lowe, sales manager, Pittsburgh Group Companies, reveals that Pittsburgh area dealers sold 6,628 gas clothes dryers during 1953, and that 2,090 dryers, or almost one-third of the 12-month total, were sold in the two-month campaign. During last fall's promotion in the Pittsburgh area, 503 dealers had gas dryers connected and available for demonstration in their stores. Dealers ran 487,958 lines of tie-in advertising in this two-month period.

"I feel," Mr. Lowe reported last month, "that utilities in the gas industry

that are not promoting gas clothes dryers are missing a good bet. It is a profitable item for them and for their dealers for five major reasons.

"First, the gas clothes dryer has received tremendous acceptance by the housewife; second, most dryers are sold at list price; third, normally there is no trade-in involved in the sale of the gas clothes dryer, and fourth, each sale of the gas clothes dryer results in a satisfied customer for the dealer and the utility.

"In addition, installation of gas clothes dryers protects your gas water heating load against competition."

Pittsburgh's 1953 dryer promotion was a three-fold campaign designed (1) to sell dealers that it is profitable to sell gas clothes dryers even though there is a price differential, (2) to sell manufacturers that Pittsburgh is a good dryer marketing area and that they should concentrate on it, and (3) to sell the public on the fact that gas clothes dryers are economical to operate and install.

The Pittsburgh Group's fall dryer campaign was one of the most complete promotional efforts ever presented by any utility. The entire presentation was

Sales Manager Robert H. Lowe (far right) with Pittsburgh sales and home service members standing before novel "TV set" they devised to put across gas clothes dryer story. Some of the basic messages used in the drive are shown at top of page



A GAS
CLOTHES
DRYER
IS
FASTER

clothes dryer in Pittsburgh

A GAS
CLOTHES
DRYER
ENDS LIFTING-
STRETCHING
HANGING

and Columbus territories

A GAS
CLOTHES
DRYER
ENDS WEATHER
WORRIES



Samples of dryer ads which The Ohio Fuel Gas Co. used to make 50 million impressions on the minds of customers

originated and presented by the utility's staff.

The slogan "Penny-A-Load" was featured throughout the campaign. Full employee support was enlisted. The sales staff obtained a portable stage and a seven-foot TV set and by covering the screen with fine nylon were able to present regular TV, color TV, and the first 3-D TV presentation in the area. The fall campaign was presented as a regular TV "show" to employees, dealers and at home shows and county fairs.

Opening the show for employees and dealers, a colored slide announcing the station and the fall dryer campaign was flashed on the TV screen by remote control. This was followed by a live pitch on the over-all program by the advertising manager. The dealer department then described ten sure-fire merchandising ideas to be presented to each dealer. These included ideas on give-aways, window displays and other merchandising approaches. Special contests for dealers, salesmen, and dryer owners were also described.

One particularly original and popular device employed in the campaign is a

standard 78 rpm phonograph record with no identification other than a large question mark. Made by a Detroit radio announcer with a compelling voice, the record explains to the housewife that businessmen in her area are anxious to lighten her housekeeping load. The voice points to washdays as a prime example and winds up with a strong sales message about gas clothes dryers.

The record was pre-tested in a Pennsylvania community where competition had a strong hold. As a result, 12 deal-

● Copy quote: "Only a gas dryer runs so cheaply—a full hour for two cents"—Michigan Consolidated Gas Company.

ers agreed to hook up gas clothes dryers for demonstration in their stores.

Follow-through on the record came when a representative of the local home service department that mailed the record called to pick it up.

At that time, the housewife received a certificate which she could take to a local gas appliance dealer.

Everyone who watched a gas clothes

dryer demonstration in a dealer's store also received a large Cannon bath towel as a good-will token. Dealers in the Pittsburgh territory distributed more than 11,000 of these towels. Half the expense of this gift-towel program last fall was met by the utility and half by dealers.

Another device which added power to last fall's dryer campaign was the Home Economics Information Clinic conducted by Flora G. Dowler, home service supervisor, The Manufacturers Light and Heat Co., Pittsburgh.

Taking part in this clinic were representatives of washing machine, clothes dryer, water heater and detergent manufacturers. These groups met with the personnel of department stores that sell washable clothing.

Purpose of the demonstration and discussions was to show how clothes in general and the new miracle fabrics in particular can be dried safely and quickly in gas clothes dryers. This knowledge enabled home service and department store sales people to answer customers' questions without hesitation.

Pittsburgh Group in 1954 will con-
(Continued on page 26)

SURVEY OF GAS ALL-YEAR AIR CONDITIONING OWNERS

CONDUCTED BY A.G.A.
HOME SERVICE COMMITTEE

U. S. SUMMARY OF 325 INTERVIEWS

1. How many people living at home? Adults 782 Children 390

2. How long has air conditioning been in this home? Years 2.9 average

3. What size is the air conditioner? 3 ton 106 5 ton 206 8 ton 2 10 ton 10 15 ton 1

4. Did the family buy a house which already had air conditioning? Yes 51 Decided to have air conditioning in their home? 274

Reason for decision: Considered best (102), low operating cost (81), liked combination unit (16), Gas Co. reputation and recommendation (15), only available (7), recommended by friends (6), Gas Co. service (5), silent operation (4), national advertising (3), others (11), none given (24).

5. Have any changes been noticed in the general health of the family since living in their air conditioned home? Yes 213 No 112

Benefits mentioned:

A. Family rests better at night 224

B. Fewer colds 50

C. Better appetites and eating habits 95

D. Relief from asthma 23

E. Relief from hay fever or pollen allergies 68

F. Health and comfort of baby improved 33

Other benefits: Sinus relief (8), Nerves relaxed (5), Arthritis relief (2), Disappearance of heat sickness (2).

By chance, any bad effects: More colds (5), Arthritis irritation (3), Sinus bothered at night (2), Hay fever irritated (1), rheumatism bothered (1).

6. Have there been any savings in doctor bills and medicine expenses that can be attributed to their home being air conditioned?

Yes 47 No 180 No Opinion 98

If Yes, how much saved in a Year: \$200 (1), \$150 (1), \$50 (1), \$25-30 (1).

If an estimate in dollars is not available, how important are the savings:

A. Large savings: 8 B. Moderate savings: 20 C. Small savings 14

(Note: these figures do not include the dollar amounts shown above)

7. Is there any difference in the household cleaning work required in their air conditioned home?

Yes 270 No 55

Benefits mentioned:

A. Less time needed for dusting furniture 244

B. Less cleaning of walls and woodwork 193

C. Less use of domestic help 38

D. Less frequent cleaning of drapes or curtains, slip covers, rugs, and upholstery 190

E. Less redecorating required 85

Other benefits: Easier to keep help (5), no mildew (4), no sweating walls (4), less silver tarnish (2), no cobwebs (1), fewer moths (1).

By chance, any increases in household work: Drapes near vents get dirty (10), more dust (6), silver tarnishes faster (1), more lint (3).

8. Have there been any savings in cleaning expenses that could be attributed to air conditioning in their home?

Yes 145 No 80 No Opinion 100

If Yes, how much saved in a Year: \$10 per week (1), \$300 (1), \$250 (1), \$100 (1), \$60 (1), \$50 (3), \$40 (2), \$30 (1).

If an estimate in dollars is not available, how important are the savings?

A. Large savings 34 B. Moderate savings 75 C. Small savings 23

(Note: these figures do not include the dollar amounts shown above)

9. Has there been any change in the eating habits of the family, such as the frequency of going to an air conditioned restaurant to avoid the heat?

A. No change 129 B. More meals at home 160 C. No opinion 36

10. Have there been any savings in eating expenses in the summer time which could be attributed to air conditioned comfort at home?

Yes 92 No 140 No Opinion 93

If Yes, how much saved in a Summer:

\$60 per month (1), \$200 (1), \$150 (1), \$50 (1).

If an estimate in dollars is not available, how important are the savings:

A. Large savings 11 B. Moderate savings 41 C. Small savings 30

(Note: these figures do not include the dollar amounts shown above)

11. Is there any difference in family recreation activities since living in an air conditioned home?

Yes 232 No 93

Benefits mentioned:

A. Fewer air conditioned movies 95

B. Fewer week-ends in the country 98

C. More evenings spent at home instead of going out 200

D. Fewer trips to parks and swimming pools 66

Other changes: More entertaining at home (45), don't desire to leave home (18).

12. Has having an air conditioned home increased or decreased family expenditures for outside recreation?

Decrease in Expense 126 Increase in Expense 7 No Opinion 192

If a Decrease, how much a summer: \$5 per week (1), \$200 (1).

If an estimate in dollars is not available, how important are the savings: A. Large savings 16 B. Moderate savings 54 C. Small savings 44 (Note: dollar amounts shown above not included)

13. Has there been any change in the way vacations are taken now that their home has been air conditioned?

Yes 102 No 174 No Opinion 49

Changes mentioned:

A. Vacations no longer taken just to avoid the heat 67

B. Vacations taken in winter rather than summer 44

C. Less of the vacation period

spent away from home because of the air conditioned comfort at home 74

Other changes: No vacations desired (7), No hay fever trip needed (2).

14. Have there been any savings in vacation expenses because their home is air conditioned?

Yes 59 No 158 No Opinion 108

If Yes, how much is saved in a Year: \$3000 (1), \$1500 (1), \$1000 (1), \$500 (1), \$300 (2), \$200 (1).

If an estimate in dollars is not available, how important are any savings:

A. Large savings 11 B. Moderate savings 29 C. Small savings 5
(Note: these figures do not include the dollar amounts shown above)

15. Is regular service maintenance performed on the air conditioner?

Yes 306 No 9 Unknown 10

16. Have there been any troubles with the conditioner?

Yes 171 No 154

If Yes, what were they:

Minor troubles (62), Air distribution (21), Water troubles (17), tower troubles (11), Noisy air distribution system (12), new fan motor (7), not cooling enough (6), control trouble (11), pilot outage (3), non-condensibles in unit (3), unit replaced (4), musty smell (2), other miscellaneous reasons (4), no reason given (14).

Have the troubles been fixed:

Yes 136 No 13 Partially 22

17. Water supply for the conditioner:

A. City water 184 B. Cooling tower 118 C. Well water 19 D. River or lake 3 E. Not known 1.

18. Temperature setting of thermostats in the summer time:

65 (1) 68 to 70 (1) 72 to 73 (1) 72 (36) 73 to 75 (1) 75 to 77 (1) 68 (6) 70 to 71 (1) 72 to 74 (9) 73 (7) 74 to 75 (3) 75 to 78 (3) 70 (19) 70 to 75 (1) 72 to 75 (4) 74 (47) 74 to 76 (2) 75 to 80 (3) 71 (1) 70 to 72 (4) 72 to 76 (1) 75 (52) 75 to 76 (3) 76 to 77 (1) 76 to 78 (5) 76 (27) 78 to 80 (3) 78 (46) 82 (1) 87 (1) 80 to 85 (2) 76 to 80 (2)

(Continued on page 47)

Gas air conditioning survey clears the air

A major contribution to the promotion and sale of all-year gas air conditioning has been completed by the Home Service Committee of American Gas Association. The project, a scientific study of homemaker attitudes, represents a gas industry "scoop" as the first survey of housewives conducted solely by other women on this subject.

Particularly significant is the disclosure that the natural resistance women often express to air conditioning disappears once they actually experience its many convenience and health features in their own homes. Final tabulations show that the most prevalent reasons for selecting gas all-year air conditioning were (1) it was considered the best, and (2) its low operating cost.

Two-thirds of the homemakers interviewed reported that the general health of their families had improved since living in their air conditioned homes. More than one-fifth of this group noted savings in doctor bills and medical expenses. More than four-fifths of the interviews reported that less cleaning work was required since their homes were air conditioned.

Many women stated that with air conditioning their families stay home for more meals, more evenings and more of their vacations. Sizeable savings in recreation and vacation expenses were noted.

Two-thirds of the homeowners interviewed considered air conditioning *essential* while most of the remaining one-third considered it *desirable*.

Results are based on returns from 325 homemakers constituting a representa-

tive sample of residential air conditioning installations throughout the United States, with the exception of the southeastern area. The special questionnaire was designed to produce factual information from the woman's point of view. A list of approximately 20 representative gas companies was approached and nine of these reported large enough gas all-year air conditioning installations to be included in the survey.

Results of the survey will be made available to all member gas companies so that they can use the information to develop programs and materials for advertising and promoting the advantages of gas air conditioning to women.

Important roles in the project were played by Julia Hunter, Lone Star Gas Co., 1953 chairman of the A. G. A. Home Service Committee, and L. C. Roberts of the same company, chairman of the A. G. A. Gas All-Year Air Conditioning Committee. A. G. A. Statistical Bureau and Home Service staff members assisted in the preparation and tabulation. Additional assistance was provided by Ruth B. Soule, home service director, The Brooklyn Union Gas Company.

The actual interviews were accomplished by the home service departments of the following companies: Arkansas-Louisiana Gas Co., Little Rock; Central Electric & Gas Co., Lincoln, Neb.; Laclede Gas Co., St. Louis, Mo.; Lone Star Gas Co., Dallas, Texas; The Ohio Fuel Gas Co., Columbus, Ohio; Southern California Gas Co., Los Angeles, Calif.; Pacific Gas & Electric Co., San Francisco, Calif.; United Gas Corp., Gulfport, Miss., and Washington Gas

Light Co., Washington, D. C.

Families to be interviewed in the A. G. A. Survey of Gas All-Year Air Conditioning were chosen at random by local home service and sales departments. Interviews were restricted to homemakers who actually own gas all-year air conditioners.

Several general observations were noted.

(1) Those homemakers who had their air conditioning more than one year reported more benefits than those who had their air conditioner less than one year.

(2) Those families having children reported more benefits on the health question and savings in recreation expenses than those families without children.

(3) Benefits reported were equally prevalent throughout the geographic areas of the United States.

(4) Most homemakers reported that some benefits were enjoyed by the family, but rarely were all the benefits enjoyed by the same family.

(5) Only those questionnaires that

were properly completed were included in the tabulation. There were several cases of incomplete information when the person interviewed had very little knowledge to contribute.

Following is a statistical breakdown of the survey returns.

General information

The average family interviewed had 2.4 adults and 1.2 children. The largest family was three adults and six children, and the smallest was one adult. About 60 percent of the families interviewed had one or more children.

Average length of time the family had enjoyed air conditioning in their present home was three years. Although about one-sixth of the families interviewed were in their first year of living in an air conditioned home, an equal number had lived in their air conditioned homes five years or longer.

The homemakers interviewed had air conditioners in the three and five-ton sizes, or a combination of these units. Of the 325 interviews conducted, 106

had three-ton units, 206 had five-ton units, two had eight-ton installations, ten had ten-ton installations, and one reported a 15-ton unit.

Reasons for purchase

Eighty-four percent of the families interviewed chose gas air conditioning for their homes. The others had purchased homes with air conditioning installed.

Gas air conditioning was chosen primarily because it was considered the best (37 percent) and because of its low operating cost (30 percent). Other reasons given were:

Gas company reputation and recommendation	6%
Liked combination cooling and heating	6%
Only residential unit available	3%
Recommended by friends	2%
Gas company's good service	2%
Quiet operation of equipment	1%
Other individual reasons	4%
No reason given	8%

(Continued on page 43)

Food display takes Milwaukee around the world

By ELLA LINER LAMBERT

Home Service Director

Milwaukee Gas Light Company
Milwaukee, Wisconsin

Milwaukee is unique as a melting pot for the foreign born. Few cities have so many nationality groups which have kept alive their old world culture by practicing national customs and serving national foods in their homes.

Because of the unusual interest and demand for holiday recipes, we began our special holiday food display some 22 years ago. At first, these holiday foods were displayed in the dining room on the eleventh floor where our department is located. Then the display expanded to our experimental kitchens, too. The week before Christmas in 1939, it was necessary to move the display to the sales floor on the first floor of our building where it has been the holiday feature ever since.

Our 1953 holiday food display interested 32,324 customers from two to 92 years of age. Two hundred twenty-seven fancy sweet breads, fruit cakes and puddings, cookies and candies were prepared in our kitchens and arranged on

a star-shaped display counter. In the center was a large Christmas tree trimmed exclusively with foods. All foods were displayed in celluloid boxes or wrapped in saran wrap and labeled for identification with recipes in our accompanying book.

Holiday foods of many nations were, as always, incorporated in our display. We have tried to Americanize many types of foreign recipes and in this way please different nationality groups. Most Milwaukee families have open house during the holiday season serving many varieties of traditional Christmas cookies, such as anise drops, lebkuchen, pfefferneuse and springerle and fruit cake with wine or coffee. Stollens and other sweet breads, fragrant with spices and laden with fruits, are a "must" for holiday breakfasts and the well-known kaffeeklatsch.

Many of Milwaukee's best liked holiday foods were introduced by the early settlers from many nations and made from historic recipes which have been handed down from one generation to another. Food standards, ingredients and kitchen appliances have improved from year to year since these traditional recipes were brought to Milwaukee. We

in home service, by combining the best of the old and new, have perfected many of these recipes and adapted them to today's tastes. This display truly has an international flavor that Milwaukeeans of all stations and ages enjoy immensely.

Innumerable comments from customers and reports of conversations in homes, restaurants, hospitals, buses and on streets, etc., indicated an astounding interest in our display and our book, "For Holiday Hospitality". This book contains recipes for all foods shown during December and was given to each customer who visited the display.

During the display, a home service advisor is on hand to act as hostess and consultant. Each advisor can relate interesting and often amusing facts gleaned from her contacts.

We believe this display is very effective, not only in selling gas and gas appliances, but also in building good customer relations.

You can go around the world on a street car pass in Milwaukee any day. At holiday time, you can go around the world on one street car ticket if you see the holiday food display at Milwaukee Gas Light Company.

Multi-story venting for apartment houses



Bernal Dwellings Housing Project in California where multi-story venting has been field tested in a full-scale installation

By E. C. ADAMS

Member, Domestic Gas Research Committee, American Gas Association, New York, N. Y.

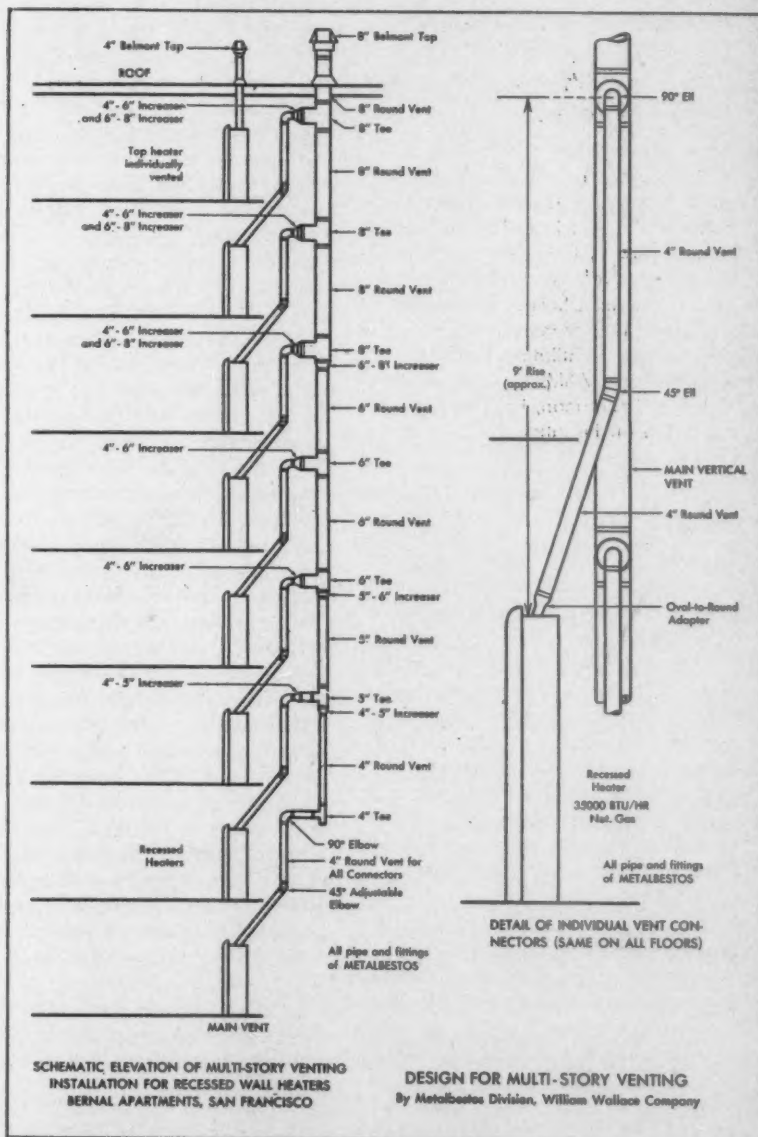
● Summary of an article written especially for the A. G. A. MONTHLY. The author is currently chairman, Coordinating Committee for Individual Apartment Heating in Multi-Story Housing Research, Gas Appliance Manufacturers Association.

Resettlement of families living in sub-standard housing is an increasing problem in many cities. Most proposed solutions involve the construction of large multi-story apartment buildings separated by garden spaces.

In 1951, U. S. Housing and Home Finance Agency sponsored a special research project to explore possibilities of lessening the first cost and operation costs of such structures. One item that apparently offered opportunity for substantial savings was the heating arrangement—use of natural gas in individual apartment heating devices instead of the usual large central heating plant. However, this approach presented the problem of multi-story venting for which there seemed to be no ready solution. The problem was studied initially by GAMA's Coordinating Committee for Individual Apartment Heating in Multi-Story Housing Research.

Later, as a consequence of research*
(Continued on page 47)

* PCGA Proceedings, Vol. 43, 1952.



SCHEMATIC ELEVATION OF MULTI-STORY VENTING INSTALLATION FOR RECESSED WALL HEATERS
BERNAL APARTMENTS, SAN FRANCISCO

DESIGN FOR MULTI-STORY VENTING
By Metalbestos Division, William Wallace Company

Pulsation exploration and gas measurement

By ERIC J. LINDAHL

Professor and Head, Mechanical Engineering Department, University of Wyoming, Laramie, Wyoming

• The author is a graduate mechanical engineer with a wide experience in instruction in that field. He has held his present post at University of Wyoming since 1947. Professor Lindahl is a member of American Society of Mechanical Engineers and American Society of Heating and Ventilating Engineers. He is a member of ASME Fluid Meters Committee and chairman, Fluid Meters Subcommittee on Pulsation Research.

Pulsative flow has been encountered and proved bothersome for many years, and studies to determine its nature, its effects and methods of caring for it have received study over a considerable period of time. Much has been done to understand and alleviate the effects of pulsation, but much remains to be done. While pulsation can have many detrimental effects, certainly one of the most serious of these is that readings of flow measuring devices may be rendered absolutely invalid when the meters are subjected to pulsating flow.

Early studies of pulsation were associated with the measurement of steam supplying a reciprocating steam engine. Later erroneous measurement of air at

the intake of reciprocating gasoline engines caused much concern. Measurement of air from fans was found difficult at times because of pulsation. Now there exists the difficulty of measuring fuels to gas turbines. And the reciprocating compressor with its pulsating flow and with the measurement problems it brings about has been in use, and promises to continue in use, for some time to come.

At the outset it may be well to examine the nature of pulsation. When the flow is steady, that is, when the pressure and velocity remain constant at each point in the flow system, the normal energy equation can be used as the basis for determining the rate of flow through an inferential meter. However, when the flow is unsteady, that is, when there is a variation of pressure or velocity or both at the points of flow measurement erroneous results occur under the application of the steady flow equations.

In gas systems these variations in pressure or velocity or both can be caused by many devices, but the chief offender is the reciprocating compressor. Other causes include undamped pressure regulators, clattering valves, and liquid surging back and forth in a low portion of a line. In recent studies with measurement of liquids it has been found that mechanical vibrations in the piping system cause phenomena similar to those observed with pulsating flow of gas. Whether mechanical vibration in gas piping systems creates pulsation errors is something that is not known at this moment to the knowledge of the writer.

To take a simple example of how pulsation may be produced and may affect measurement assume that pressure varia-

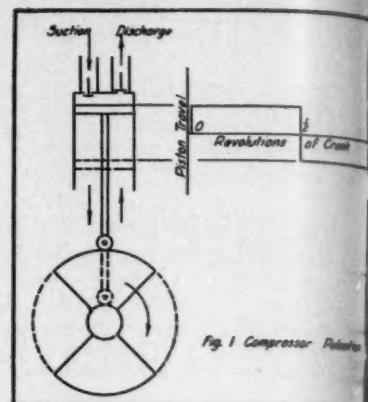


Fig. 1 Compressor Pulsation

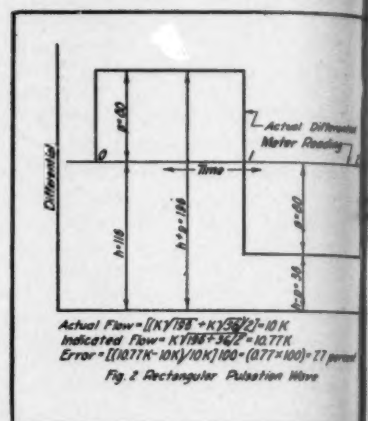


Fig. 2 Rectangular Pulsation Wave

tions are produced by the apparatus in Fig. 1 which, ideally, would produce the rectangular pressure wave shown. As shown in Fig. 2 the pressures vary from $h + p$ to $h - p$ where p is the pulsation pressure and h is the average differential.

To give an example of how pulsation of this type may affect the reading on an inferential meter, first assume that the flow measured by the meter is given by the equation $Q = K\sqrt{h}$ where Q is the measured rate of flow, K is a constant for the given meter, and h is the meter differential. Then, for the meter subjected to pulsating flow assume that during one period of time the actual differential is 196 units while during the next similar time interval the differential is 36 units, and that the recorder on the meter, because of its inherent inertia, indicates the average of the two actual differentials, or 116 units. The actual rate of flow will be

$$\frac{K\sqrt{196} + K\sqrt{36}}{2} = 10K$$

Presented at A. G. A. Gas Supply, Transmission and Storage Conference in New Orleans, La., March 4 and 5, 1954.

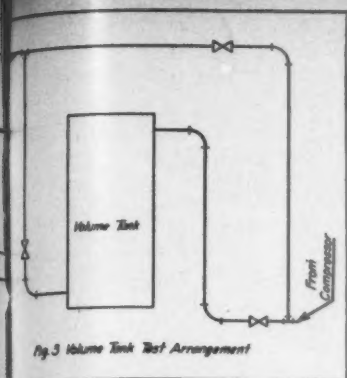


Fig. 3 Volume Tank Test Arrangement

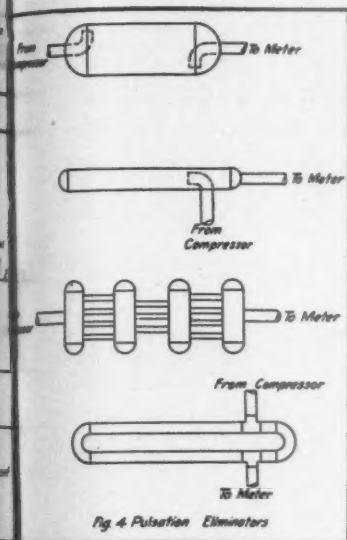


Fig. 4 Pulsation Eliminators

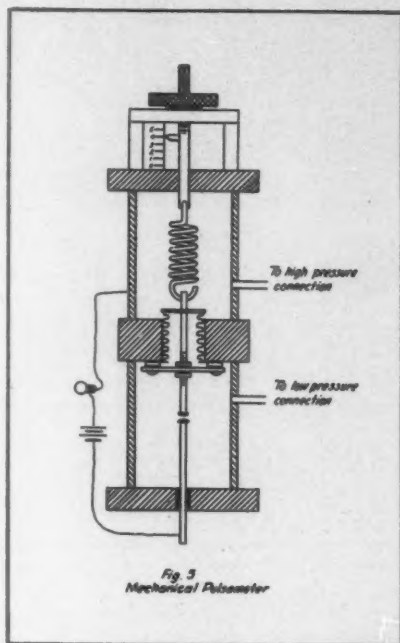


Fig. 5 Mechanical Pulsometer

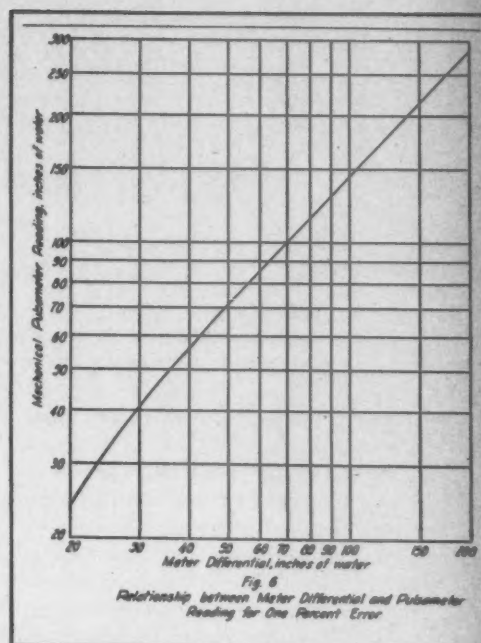


Fig. 6 Relationship between Meter Differential and Pulsometer Reading for One Percent Error

and at the same time the instrument will indicate a flow of

$$K\sqrt{\frac{196 + 36}{2}} = 10.77K.$$

This meter under pulsating flow then gives a reading which is

$$\frac{10.77 - 10K}{10K} \times 100 = 7.7\%$$

greater than the actual flow.

The foregoing discussion simplifies very much how pulsation causes erroneous meter readings but does indicate why pulsation should not be tolerated. While the sample calculation just shown indicates an error of 7.7 percent the actual error in a meter reading due to pulsation may run into hundreds of percent. In passing it should be pointed out that ideal rectangular, triangular and sine waves have been analyzed for the maximum error which each can produce. It was found that the maximum error of

approximately 40 percent was found in the rectangular wave and since actual meter errors can be much greater than this perhaps it might be concluded that the actual pulsation waves are anything but regular. At least, this has been found to be the case in some instances where the shape of actual waves has been determined. Then, too, phenomena besides pressure variations enter into pulsation.

Some of the early studies were concerned with the nature of pulsation and a few theoretical investigations were made. For instance, it was found that for a given rate of flow the error due to pulsation was decreased if a smaller orifice was used and the differential was increased thereby. Another early study shows that restrictions placed in gage lines increased the meter error rather than decreasing it.

The study using the test set up shown in Fig. 3 and similar studies indicated that a volume placed in the line would tend to absorb pulsation. In this test the

pipng was arranged in such a way that the system could be operated both with and without the tank.

Other devices, a few of which are shown in Fig. 4, have been utilized and minimize pulsation to a greater or less degree.

Apparently any volume or anything that will produce a pressure drop when placed between the source of pulsation and the meter will tend to minimize the error due to pulsation. A pipeline between the two, if of some length, should eliminate pulsation and while it no doubt does in many instances there have been cases where lines of considerable length have not erased the pulsation.

While volume tanks placed between the source of pulsation and the meter have proved successful in some cases at least but for some installations they would prove impractical because of the huge sizes that would be required. Commercially developed eliminators have

(Continued on page 41)

Facts and Figures

Prepared by A. G. A. Bureau of Statistics

Gas range shipments during the month of January were 4.7 percent greater than in the preceding month but nevertheless 18.1 percent under the comparable January in 1953. This is the fourth consecutive month in which a decline in range shipments has been recorded when compared with the comparable month a year ago. The downturn in new housing starts which began during the middle of last year has been to a great extent responsible for the slackening demand for gas ranges. Housing starts during January were estimated at 66,000 units, down 8.5 percent when compared to the same month a year ago, and down 3.0 percent from the preceding month.

Shipments of gas water heaters during January aggregated 167,200 units, up 21.3 percent over the December 1953 shipments but down 9.1 percent when compared to January 1953.

Appliance data relate to manufacturers' shipments of the entire industry compiled by the Gas Appliance Manufacturers Association. Industrywide electric appliance statistics are based on data compiled by the National Electric Manufacturers Association, and are reprinted by GAMA in their releases.

The Federal Reserve Board Index of Industrial Production declined 4.5 percent during December 1953 when compared to the same month a year ago. Despite this decline in industrial activity, gas utility and pipeline sales for the month of December totaled 5,748 millions of therms, up 2.5 percent over December 1952. Lower househeating demand due to the milder weather experienced in most sections of the country was more than offset by an increase in sales to industrial users, which were up 11.0 percent over the same month a year ago.

SALES OF GAS AND ELECTRIC RESIDENTIAL APPLIANCES (WITH PERCENT CHANGES FROM THE CORRESPONDING PERIOD OF THE PRIOR YEAR)

	January 1954		December 1953		January through December	
	Units	Percent Changes	Units	Percent Changes	Total Units	Percent Changes
RANGES						
Gas	138,600	-18.1	132,400	-25.9	2,181,300	+ 0.3
Electric	n.a.	n.a.	84,400	-15.3	1,305,900	+23.2
WATER HEATERS						
Gas	167,200	- 9.1	137,800	-22.8	2,125,700	+11.3
Electric	n.a.	n.a.	44,300	-29.6	775,500	+ 7.7
GAS HEATING						
Furnaces	26,900	-13.5	32,300	- 2.4	512,500	+13.7
Boilers	2,900	+ 7.4	3,100	-20.5	72,000	+ 5.1
Conversion Burners	9,000	- 7.2	8,400	- 5.6	213,100	- 6.3

GAS SALES TO ULTIMATE CONSUMERS BY UTILITIES AND PIPELINES DURING DECEMBER

(MILLIONS OF THERMS)

	1953	1952	Percent Change
DECEMBER			
All types of gas	5,748	5,606	+2.5
Natural gas	5,433	5,273	+3.0
Other gases	315	333	-2.4
TWELVE MONTHS ENDING DECEMBER			
All types of gas	56,421	52,620	+7.2
Natural gas	53,181	49,293	+7.9
Other gases	3,240	3,327	-2.6

PERTINENT BUSINESS INDICATORS, JANUARY 1954

(WITH PERCENT CHANGES FROM THE CORRESPONDING PERIOD OF THE PRIOR YEAR)

	January 1954	Percent Change	December 1953	Percent Change
Industrial activity (1947-49 = 100)	125	-6.7	127	- 4.5
Consumer prices (1947-49 = 100)	115.2	+1.1	114.9	+ 0.7
Housing starts, Non-farm (thousands)	66	-8.5	68	- 4.9
New private construction expenditures (\$million)	1,713	+5.3	1,908	-25.2
Construction costs (1947-49 = 100)	135.2	+4.5	134.7	+ 4.0

Search for Mrs. America in high gear in Florida



a PAR activity

An investment
of only
\$300 is de-

veloping a promotional "gold mine" for Peoples Water and Gas Company serving the "Gold Coast" of Florida.

Using imaginative thinking and an aggressive approach, the company has become one of the most active supporters of the gas industry's Mrs. America campaign.

Coordinated through the office of Roy E. Jones, executive vice-president of the utility company, the search is on in Florida for the future Mrs. America—the nation's outstanding homemaker.

First problem faced was the need for a local distribution media to carry the Mrs. America entry blank and contest news. This was solved by enlisting the *Miami Herald* (insured circulation more than 300,000) as an active partner in the contest, result—more than \$10,000 worth of free editorial space. News stories and facsimile reproductions of the entry blank were started on Sunday, January 17 and a continuing flood of stories is planned to create and maintain local interest in the contest.

The Merchant's Grocery Co., distributors of *Better Living Magazine*, was also enlisted in the campaign. This store, with six outlets in Dade County, is actively merchandising the contest by means of newspaper advertising and point of sales

material. Offices of Peoples Water and Gas Company have already distributed more than one thousand facsimile entry blanks.

All department stores, air lines, and Southern Bell Telephone Company are supporting the Mrs. America contest among their employees by means of their own public relations, by posters, and by display material in the stores. Local companies report heavy demand for entry blanks.

Personal calls on company executives, followed by letters and complete news stories, have assured the use of employee publications for additional support of the Mrs. America contest. Southern Bell Telephone Company has placed contest information on large signs and placards throughout the Peoples Water and Gas Company territory.

In addition, The Gas Institute of Greater Miami, comprising 15 separate companies, has contributed newspaper advertising and daily radio spot announcements.

On March 17, St. Patrick's Day, Mrs. Florida will be chosen at the Miami Bayfront Auditorium. This event will be the climax to the annual Miami Home Show sponsored by the Miami Board of Realtors. Past attendance at this show has been about one million persons and may even exceed that figure this year.

The Gas Institute has reserved 1,800

square feet of free space at this show for a united display of gas and gas products. The Miami Board of Realtors is creating at its own expense a special stage which will place Mrs. America contestants above the usual stage height thus assuring visibility of three complete gas kitchens that are being installed. Local prizes worth more than \$1,000 have already been lined up to create additional interest and for use as consolation to those who almost won.

An impressive list of judges has been organized representing companies that are tying-in with Peoples Water and Gas Company. Among the judges is Laura O'Banion, co-owner of a local dress manufacturing concern and runner-up in a recent Mrs. America contest.

Here is a sample bulletin from the employee publication of a cooperating Florida firm showing the type of valuable tie-in support that the utility has obtained without cost.

"There's a future Mrs. America working right here at Hartley's—and we're going to find her! We'll do it, too, but only with the help of each and every employee of this organization.

"A quest is now on to find Mrs. America—the nation's most outstanding homemaker who will be selected principally for abilities as a homemaker and meal planner as well as for personality and charm.

"The Mrs. America winner of the

● *Utility's \$300 budget, imagination and legwork building strong Mrs. America tie-in*

WIN \$15,000 IN PRIZES

Here's the biggest thrill of your married lifetime! Win a Grand Tour of Europe. A two-week all-expense paid vacation. A household of new appliances and loads of other valuable home prizes. This is a Homemaker's contest NOT a beauty contest. And it's so easy to enter.

ARE YOU MRS. AMERICA?

CONTEST RULES

Any married woman, 21 years or over who is a citizen and permanent resident of the United States, may enter. **COME IN NOW FOR YOUR OFFICIAL ENTRY BLANK.** AVAILABLE AT TANNERS, GROCERIES, B-THEIRTY MARKETS OR your nearest office of

PEOPLES GAS COMPANY

MIAMI BEACH N. MIAMI HOLLYWOOD FT. LAUDERDALE



Meeting of judges to formulate plans for Mrs. America contest in Florida: (left to right) Perry Willets, president, NAHB Miami chapter; Martha Lee Henderson, director, home making department, Dade County public schools; Dorothy Journey, woman's editor, "Miami Herald"; Roy E. Jones, executive vice-president, and J. P. Happ, sales manager, Peoples Water and Gas Co.; James Fussell, Gas Institute of Greater Miami; S. F. Wikstrom, A. G. A.; Laura O'Banion, Miami dress manufacturer and former runner-up in Mrs. America contest

1954 Contest will receive awards of more than \$15,000 featuring a grand tour of Europe via Scandinavian Airlines System on the famous Royal Viking DeLuxe flight. Each state finalist will receive an all-expense-paid trip for herself, her husband and children (if any) to and from fabulous Elinor Village, Ormond Beach, Florida, where from April 21st through April 25th 1954, the grand finale of the 16th annual Mrs. America Contest will be staged.

"Elinor Village in Florida is the world's largest family resort, comprising 650 homes. One community street has been renamed Mrs. America Drive, and 51 homes on this drive will be used to house the various state winners, plus one each from the District of Columbia, Hawaii, and Canada.

"All homes on Mrs. America Drive

are being equipped with the latest model gas appliances. A special deluxe home to be known as the Mrs. America Home, in which the grand final Mrs. America Contest winner will reside for two weeks after the contest, has been furnished with gas appliances.

"In addition to the SAS European tour, the homemaker selected as Mrs. America next year will receive for her own home a complete Mrs. America kitchen designed especially for her, a Detroit-Michigan deluxe range, a Servel gas ice-maker refrigerator, a Bowser gas incinerator, a gas water heater designed by John Wood, a complete pantry family supply of Monarch Finer food, Federal vogue enameled ware, a Bell portable sewing machine and an oil painting of herself by artist Charles Biro.

"The quest to discover Mrs. America

is open to all Hartley, Inc., women who are married, and we know nearly all our girls could qualify for top honors. This is not a bathing beauty contest—which means you don't have to be a Marilyn Monroe or a Betty Grable. Married women of all ages are eligible and the judging is based 50% on homemaking ability and 50% on personal attractiveness and charm.

"It's a simple, easy matter to enter.

"Entry blanks may be obtained from

"State elimination contests will be held to select a winner to compete in the Grand Finals at Elinor Village. The local elimination contest will be March 17 at Bay Front Auditorium during the Home Show sponsored by the Miami Board of Realtors. The state finals will be at Dinner Key Auditorium April 14 during the "Do-It-Yourself" Show, sponsored by the *Miami Herald*.

"Confidential reports tell us that married women from other companies in our city are rushing to enter and win the Mrs. America title. When it comes to homemaking ability, charm and attractiveness, we know that women from our company have what it takes. So let's get started right away and see that we win the Mrs. America crown. Remember . . . we can win the local and state wide crowns if we can't hit the top. **BUT WE'RE GOING TO HIT THE TOP!** So don't delay! Get your entry blank in immediately."

Belief—the common denominator

● There is one common quality which all successful men, whether in business or any other field of endeavor, seem to possess. It is the ability to believe unflinchingly in the work they are doing. And because they do believe in that work, their lives are sharply focused upon it—even to the extent of dimming all other things. The executive who develops an earnestness about his work, without becoming pompous or overzealous, who believes that his work is worthwhile and significant, is usually

the one who accomplishes the most, and thus achieves the most success. By believing in what you are doing, you find that you possess a fathomless reservoir of strength for carrying out your work. Belief in a job may be difficult if the job lacks prestige or is not particularly interesting. But if you can develop this belief in your work, it will probably self-perpetuate itself, and you will find yourself working with increasing enthusiasm.

—Office Executive

How can you accomplish a good home service program in 1954?

(1) Set a goal for the year. Have some definite aims for accomplishment, something to strive for. Know where you're going.

(2) Set up a program of work. Analyze what activities are most important to you and emphasize them in your community. Determine how much of your time should be spent on home calls, school work, group demonstrations, mass cooking schools and teen-age classes. Keep them in balance so you reach a cross-section of your customers. Set up activities to reach new customers.

(3) Organize your department. Whether you have a large staff or a one-girl operation, your time, your people and your activities must be organized to give your company the greatest possible efficiency. Do not be afraid to repeat a demonstration if you are reaching new groups. Don't be so creative that you cease to be productive.

(4) Strive for better training of personnel. You can develop a good program, have all of the physical tools at hand and an unlimited operating budget. But whether your department's efforts succeed or fail is determined almost entirely on what an individual home service girl says and does in a customer's home or

on the stage in front of 500 women.

Too many times we are inclined to be so anxious to get things done that we forget the importance of good background training. Make sure in 1954 that you and your department put some special emphasis on a more thorough knowledge of equipment, foods, laundry techniques, fabrics and all the other fields so closely related to home service.

(5) Work closely with your sales or promotion department. Don't sit back and wait for them to ask you for suggestions. Work out ways that you can co-operate and assist with campaigns and promotional activities. Go to them for advice and help on your home service problems.

(6) Get better acquainted with your dealers. Learn their problems so you can best offer them assistance.

(7) Do things. Be alert to fresh ideas. Try out new programs. Streamline old activities to meet present needs. Discard worn-out activities. Take the material and ideas you get in the next three days back to your own company. See how much of it can be added effectively to your own program.

(8) Approach 1954 with enthusiasm. It is the priceless ingredient that you need for selling your customers, your department and your management.

Secrets of home service

By MARY E. HUCK*

Chairman, A. G. A. Home Service Committee, General Home Service Director, The Ohio Fuel Gas Co.

Recently, our company sponsored a "motivation survey of attitudes"—a fancy title for delving into the minds of women as to what they think and why. This survey was an authentic project by reputable trained people, and it cost money. It is the first time, so far as I know, that the reactions of women customers concerning our company and product have been put down in black and white.

Let's interpret some of the findings.

Those women customers who seem not to know brands or modern features can be divided into two groups—the younger ones buying a range for the first time—the others who comprise the replacement market. If we're to get our share of the younger group we have to appeal to them on the basis of modernity, ease of use, cooking know-how (they love to concoct recipes), and the smart over-all picture of their future kitchen—something "real cool", to use the vernacular. Incidentally,

this can't begin too early. Schools, girl scouts, and teen-agers groups must be contacted early and often on their level. Obviously, something should be done about those apartment house ranges.

The older women are interested in food, they are experienced cooks and they are "sick to death of three meals a day". Most of them can cook; so let's not try to teach cooking.

The demonstration approach with this older group should be, "Let us help you get out of that rut. Look what new appliances will do for you, plus all the short cuts of package mixes and frozen foods." Build up her ego and help her decide that she's entitled to new appliances after all these years. She wants somebody to tell her what a good job she's done and how much easier she can make that job. Show her the special features, the smokeless broiler, the timers, the wonderful surface burners. Contrast the old with the new. Let's have demonstrations and more demonstrations, but

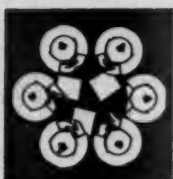
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How to be a master key

By GLADYS B. PRICE*

Home Service Supervisor Southern California Gas Co.

*Excerpts from talks presented at the 1954 A.G.A. Home Service Workshop in Columbus, Ohio, January 18-20.



Industrial relations round-table

Prepared by
A. G. A. Personnel Committee

Edited by W. T. Simmons

Assistant to Manager,
Personnel Department
Philadelphia Electric Company

● **Gifts to Employees**—Do you have the problem of your employees accepting gifts from your suppliers or other business contacts? Has it persisted in spite of your statements not to accept these gifts? The General Electric Company found that the answer was to go to the donor of the gifts.

Frequently, the employee cannot help himself. He faces the dilemma of refusing a gift and possibly antagonizing one of your contacts or accepting the gift and violating your rules.

General Electric, in addition to adopting a policy forbidding employees' acceptance of gifts, sent a letter to its suppliers. It stated that the government maintains a rigid policy of not permitting contractors to entertain or make gifts to government employees. In a like manner, the letter quoted the strict policy in connection with gifts and favors.

● **NLRB Rulings**—*Worker desiring union help must use his representative*—The National Labor Relations Board rules that an employee may not take a grievance to his employer through a rival union when presently he is represented by another labor organization at the plant.

Revising the Hughes Tool case, the board unanimously rejects a trial examiner's recommendation that Federal Telephone and Radio Company be freed of charges that it processed the grievance of a worker with representatives of CIO's International Union of Electrical Workers at a time when the employee was represented by AFL's Machinists at the Clifton, New Jersey, plant.

The trial examiner, Albert P. Wheatley, held that the grievance actually was processed through friends of the worker rather than by IUE. But the board discounts his conclusion, taking into consideration that: (1) only one of the three persons who aided the worker was a friend of his, the others being the business representative for IUE and IUE's attorney; (2) all correspondence with the company on the matter was entered into by all three of the alleged "friends", and IUE stationery was used, and (3) at meetings with the company, over protests of IAM, the three IUE representatives carried the case for the employee.

Relying heavily on the Hughes Tool decision, the NLRB recites part of the Fifth Court of Appeals opinion in that case where it said:

"It was not thought good to allow grievance hearings to become clashes between rival unions. We think an inexperienced or ignorant griever can ask a more experienced friend to

assist him but he cannot present his grievance through any union except the (majority) representative."

● **Supreme Court decision**—*Inferences proper for NLRB's findings*—In its first three cases involving discrimination which encourages union membership, the Supreme Court holds that detailed proof of motive or effect of the discrimination isn't necessary to support a charge of a Taft Act violation. The charge will stick if the facts lead to a reasonable inference of encouragement or discouragement of union membership, the court says, and NLRB is the agency which has power to draw those inferences.

The court's decision upholds findings of illegal discrimination by NLRB in cases which involved reduction in seniority for a union member who was late in paying his dues, refusal to hire a worker who had been placed in bad standing for transgressing union rules, and the payment of a retroactive wage increase and vacation benefits to union members but not to non-members. All of these were held to encourage union membership, even though in one case, the union was at the time accepting only first-born sons of members as initiates.

In upholding the power of NLRB to draw inferences from the facts, without proof positive of the employer's motive, the Supreme Court refers to the legislative history of the Taft Act. The court says that it is "inconceivable" that the lawmakers intended to deny such power to the board. A fact-finding body must have some power to decide which inferences to draw and which to reject, the court says, concluding that in this respect Taft-Hartley did not alter prior law.

● **Substitute for Suggestion Boxes**—If your suggestion box is collecting more dust than suggestions, consider the "Idea Exchange Plan" of the Parker Pen Company of Janesville, Wisconsin. Under this plan, employees deliver their suggestions to an "Idea Coordinator". The Idea Coordinator helps the employee develop his suggestion and follows through on it until a final determination is made. If an idea is turned down, an employee can appeal through the Idea Coordinator. This new system resulted in a big jump in the number of suggestions received.

● **Did you know?**—That in 1940 only \$37,000 in OASI benefits under the Social Security program was paid to recipients living outside the United States, but in 1953 there were 30,000 such non-residents receiving \$16 million? Also, in December 1952 the average monthly primary Old Age and Survivors Insurance benefit paid to aged persons living abroad was \$53.34, while the average payment to those living within the United States was \$49.25.

Interesting also is the fact that individuals

receiving OASI benefits and living abroad are not subject to suspension of benefits whenever they earn wages of \$75 per month or more. This is because work abroad, except that performed by an American citizen for an American employer, is not covered employment within the terms of the Social Security Act, and monthly benefits are suspended only when monthly wages of \$75 or more are made in covered employment.

● **Arbitration decisions**—*Umpire supports Bethlehem Steel in demoting supervisor at his request*—Management may demote a supervisor, at his own request under the contract between Bethlehem Steel Company and CIO's Steelworkers, according to permanent umpire Ralph Seward.

The award turns down a union grievance charging that a supervisor at the company's Lackawanna plant was "demoting himself" in violation of the contract. The foreman was promoted out of the bargaining unit, didn't like his new job, and requested a few months later to be demoted to his old job. He had to wait nearly two years, however, until the company completed a new installation. At that time, on November 1, 1952, it demoted him.

The Steelworkers conceded that supervisors retain and accumulate seniority in the unit from which they are promoted. But the union urged that he had no right to accept the promotion and then force his way back into the bargaining unit. Management could demote him, but that is a different matter from his demoting himself, the union claimed.

Seward doesn't see it that way, however. The union's grievance is based on a "misconception", he states. Management has sole authority to promote and demote; no employee ever "demotes himself". There is no contractual basis for arguing that the company may not at the employee's request do something which it might do of its own volition. The umpire denies the grievance and states that management has the right to transfer the supervisor back into his old job at will, "in line with his seniority."

● **Quotes of the Month**—One of the best sessions on "management development programs" was a recent workshop sponsored by the Training Directors' Society of Philadelphia. These gems cropped up in off-the-cuff talks, and the quotes go about like this:

"We're kidding ourselves when we talk about 'management development programs.' No program can develop a manager. The best any company can do is provide the most favorable conditions for a man to develop himself."—Lincoln Atkiss, director executive and supervisory personnel inventory, The Atlantic Refining Company.

"Perhaps the most common failing of management is that we spend so much time doing the things that are urgent we seem to have

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Purchasing & stores open house



Pat H. Butler, Washington Gas Light Co., chairman, Purchasing & Stores Committee



E. G. Plowman, U. S. Steel Corporation executive, will address the conference



"Working Together" will be discussed by J. S. Phillips, United Fuel Gas Company

Everyone concerned with inventory control, ways to reduce costs, standardization, standard packaging, and a host of associated subjects is invited to American Gas Association's National Purchasing and Stores Conference in the Henry Grady Hotel, Atlanta, Ga., April 19-21. The three-day meeting is sponsored by the Purchasing and Stores Committee of the General Management Section.

This committee, with Pat H. Butler, Jr., Washington Gas Light Co., as chairman, has arranged a program covering many of the major problems confronting gas industry purchasing and stores people. These subjects include types of buyers, material handling, methods of taking inventory, traffic, coordination of purchasing and stores, storeroom design information, personnel, and answers to current problems.

Purchasing and stores have been termed key factors in any business enterprise. All member companies are being urged therefore to send representatives to this conference for a concerted attempt to improve purchasing and stores operations. A number of top authorities in their respective fields will address the conference. Each presentation will be followed by a full discus-

sion period for trading ideas.

E. G. Plowman, vice-president and general traffic manager, United States Steel Corp., will speak on the general subject of "Traffic" with special emphasis on routing, rates, handling, and claims. Mr. Plowman is an expert on business management, economics, personnel relations and transportation. He has been traffic manager for Colorado Fuel and Iron Corporation and Colorado and Wyoming Railway. During the war, he served as traffic manager of the Steel Division of the War Production Board, and organized the Military Traffic Service for the Department of Defense.

Mr. Plowman is a member of American Iron and Steel Institute, former president of American Society of Traffic and Transportation and now president of National Defense Transportation Association. He is the author of "Business Organization and Management", written in collaboration with Dr. Elmore Petersen.

"Working Together" will be the subject of J. S. Phillips, vice-president and general manager, United Fuel Gas Company. He will discuss the often annoying and troublesome problems which

may be avoided by closer departmental cooperation.

Prior to his present position Mr. Phillips was vice-president and director of purchasing and stores for Columbia Gas System Service Corporation. He has had a wide experience in these two fields.

R. H. Bussard, manager, purchasing and stores department, Washington Gas Light Co., and A. H. Cannon, stores supervisor, Transcontinental Pipe Line Co., will discuss "Inventory Control" from the viewpoints of a distribution company and a transmission company, respectively. They will explain the establishment and operation of procedures, efficient use of IBM summaries, use of repeating requisitions, etc. They will keep in mind the vital question, "how much and when should materials and supplies be ordered for stock?"

Lester R. Michelsen, general storekeeper, The Peoples Gas Light and Coke Co., Chicago, is chairman of the Standard Packaging Subcommittee, a group of seven years' standing with many worthwhile accomplishments to its credit. All gas companies have profited from this subcommittee's packaging program work. Manufacturers have been

sold on the packaging and the standards agreed upon have become national standards of the Commodity Standards Division of the Department of Commerce. Mr. Michelsen will report on the committee's progress in its most recent endeavors. These include standard packaging for steel pipe couplings and stop cocks.

"Methods of Taking Inventory" is the subject of a subcommittee headed by A. H. Cannon, stores supervisor, Transcontinental Gas Pipe Line Company. This group will present worthwhile information obtained by circulating questionnaires among members of the Purchasing and Stores Committee. Mr. Cannon has stated that this matter of taking inventory has been found to be a considerable problem in many places. Management is especially interested in obtaining more information on this subject. Methods now in use will be presented so that all may have a look at how others are handling this costly and annoying, yet necessary problem.

Fred W. Kraemer, Jr., stores supervisor, New Orleans Public Service, Inc., is chairman of a subcommittee working on the question, "What are you doing to reduce purchasing and stores costs?" He will present the results of a poll of all companies represented on the Purchasing and Stores Committee. The short cuts, new wrinkles, etc., discovered by this subcommittee will be of interest to everyone concerned with the vital problem of cost reduction in purchasing and stores.

Several years ago it was felt that mem-

bers of the Purchasing and Stores Committee should be kept better informed on new developments in equipment and methods for material handling. Considerable work was done, but a satisfactory solution of this problem has been worked out only recently. This has now evolved into a new project group known as the "Material Handling Subcommittee", headed by E. F. Hawkesworth, general supervisor of central stores, Southern California Gas Company. In addition to new products, money-saving ideas and new ways of using equipment now in service are being sought. This will be a continuing subcommittee which is expected to disseminate its findings from time to time to members and others interested by means of a "Materials Handling Service". Mr. Hawkesworth will present a progress report on the subcommittee's work.

Storeroom design

Several companies have recently built new storeroom facilities. Others are awaiting the green light from management to proceed with construction of their much needed storerooms. Those who have built have found mistakes in the design of certain features. A special subcommittee has been set up to help the industry avoid similar mistakes in the future. This group, headed by Paul T. Hughes, supervisor of stores, Southern Counties Gas Company of California, will present for discussion a check list of "Do's and Don'ts in Storeroom Design". This list can be used by purchasing and stores personnel and architects as a guide in preparing or checking plans for storerooms and pipe yards.

B. H. Firestone, general storekeeper, Northern Indiana Public Service Co., heads the subcommittee on "Standardization". This topic concerns all who are interested in material for the gas industry. Not only would the handling of and accounting for material be made easier, but manufacturers using industry-wide standards would be able to reduce costs of production and handling. This should result in savings on purchases.

Studies are underway on: (1) standard lengths and identification of steel pipe, (2) standard size of lock openings in key and wing cocks, (3) meter bars, and (4) standard face-to-face dimensions from inlet to outlet to vent on service regulators.

Mr. Firestone will report for his com-

mittee on the progress his committee has made to date.

A "General vs. Special Buyers" Subcommittee has been established under the leadership of Wilton L. Brown, purchasing agent, The Peoples Gas Light and Coke Company. This subcommittee has studied the virtues of these two types of buying. Studies have considered the size of the department, type of company, cost per order and benefits derived from the systems being used. A forum will be presented by this subcommittee with discussions led by the following panelists: W. L. Brown, as moderator; G. F. Olsen, purchasing department, Long Island Lighting Co.; V. C. Parkes, assistant purchasing agent, El Paso Natural Gas Co., and H. G. Lawrence, manager of purchases and stores, Southern Counties Gas Company of California.

John C. Sims, purchasing agent, The Brooklyn Union Gas Co., is chairman of the subcommittee on "Purchasing and Stores Personnel". There is heavy demand for information on the recruiting, selection, and training of purchasing and stores employees. The A. G. A. Personnel Committee has been asked to assist in this study. Mr. Sims will give a report of this subcommittee's activities to date.

In an attempt to improve the Purchasing and Stores Committee's services to A. G. A. member companies, a group known as the "Problems" Subcommittee has been established under the leadership of Carl H. zur Nieden, general superintendent of stores, Philadelphia Electric Company. This subcommittee will aid any gas company seeking assistance on purchasing and stores problems arising from time to time. Mr. zur Nieden will report on the first six months' operation of the committee.

It has long been the custom of the Purchasing and Stores Committee to use the last day of the conference to tour the local gas company and/or related industries. Many delegates have obtained worthwhile ideas from a visit to the local company's purchasing and stores departments. Consequently, arrangements have been made to see the Atlanta Gas Light Company's stores and propane facilities and the Ford Motor Company's Atlanta assembly plant.

● A cub reporter was told to cut his stories to bare facts. The next day he produced this.

"John Smith looked up an elevator shaft to see if the car was on the way down. It was. Age 45." —*Industrial News Review*

Those gas bills

● When you heated your house with coal, a higher-than-usual fuel bill never took you by surprise. As you shoveled the stuff into the furnace, you could see the coal pile dwindling.

With gas and a thermostat, however, there's nothing to shovel. Unless you're the curious type and look at the meter every day, you have no idea how much gas you're using. Comes a month that is abnormally cold; comes also your gas bill, and you scream!

That's what happened in the Akron district last month. Probably only the weather men remembered that December had been exceptionally cold. Result: The East Ohio Gas Co. was swamped with complaints.

When you stop to think about it, a gas bill that seems big is a reminder that automatic heat is a mighty convenient thing. —*Akron Beacon Journal*



Beach J. McMillen, Cincinnati, will describe the gas industry's new packaged unit on customer relations training



Economic outlook will be probed by Martin R. Gainsbrugh, chief economist, National Industrial Conference Board



Conference keynoter will be Dr. Kenneth McFarland, noted educational consultant for General Motors Corporation

Accountants focus on the future

By A. T. GARDNER*

Chairman, Editorial Committee
A. G. A. Accounting Section

A jam-packed National Conference of Gas and Electric Utility Accountants has been scheduled to be held at the Hotel Statler in Boston for three days, beginning April 12.

It is perhaps mere coincidence that this forthcoming conference is scheduled to meet in Boston within a few days of the 179th anniversary of Paul Revere's nocturnal ride. However, there is more than just historical significance attached to this meeting.

These annual conferences have rendered a practical and significant service to the gas and electric industries. By pioneering, both in thought and action, in the myriad complexities of utility accounting problems, they have demonstrated the progressive spirit and dynamic initiative upon which American industry was originally founded.

* Mr. Gardner is vice-chairman of the A. G. A. Accounting Section and vice-president and secretary, Delaware Power & Light Co., Wilmington, Delaware.

Of the applied sciences of today few are so generally and extensively used as the science of accounting. In all branches of commerce and trade, in all parts of the world, the maintenance of accounting records to record monetary and other business transactions is an indispensable need for the safe conduct of business. Without them no business enterprise could be intelligently launched nor its course successfully directed.

Since the advent of gas and electricity in the United States, these industries, through American Gas Association and Edison Electric Institute, have played a specific and conspicuous part in the continuing advances made in accounting technique. It goes without saying that these advances have kept well abreast of business growth.

But coming back to the conference and its specific aspects, your joint committees have formulated an ambitious program, wide in scope, which we believe will appeal not only to utility accountants, but also to those in operating, management, and other fields of the industry.

The topics to be discussed touch on many different facets of the industry;

also they are topics of current interest and current concern. For that reason, it is felt that in many instances they will prove helpful in solving problems that some of us are faced with today.

Some of today's most perplexing and controversial problems in the utility accounting field, coupled with the best and latest solutions to a wide variety of accounting problems, will be brought out in the open and given a thorough going over by national authorities teamed with leaders of the utility industry.

Opening gun of the conference will be fired by A. G. A.'s President, E. H. Eacker, president, Boston Consolidated Gas Co., who will welcome the delegates at the general session on Monday afternoon.

The Section was fortunate in luring as its keynote speaker one of the nation's top-drawer personalities in the field of education, Dr. Kenneth McFarland, superintendent of schools in Topeka, Kansas and educational consultant for General Motors Corporation.

While Dr. McFarland has attained national fame as an educator, his accomplishments extend far beyond academic fields. Through his extensive travels and

Accountants at work behind the scenes

● This second article in the current series of "Accountants at work" introduces Ohmer Ullery, assistant treasurer, The Ohio Fuel Gas Co., Columbus, Ohio.

Ohmer has served Columbia Gas System companies for a total of 31 years. He has been active in A. G. A. accounting committee work for the past few years having served both the Customer Activities and General Activities Groups in various capacities.

He is currently chairman of the A. G. A. Subcommittee on Accounting Techniques of the General Accounting Committee. This group is working on a number of important projects, including allocation of expenses

in combination companies, payroll reporting, stores expense, accounting for supervision and engineering, purchasing and stores accounting procedures, etc. The last project involves a full industry survey for presentation at the National Conference of Electric and Gas Utility Accountants in Boston next month.



Ohmer Ullery

work with management groups in a great variety of industries, he has acquired a broad knowledge of many phases of business.

Dr. McFarland's speeches consist of a pleasing blend of information, inspiration and good humor. Probably few, if any, speakers in America travel more or fill so many important speaking engagements. With his office in the center of the country, it has been said of him that "the whole of America is his classroom and Americans everywhere are his students".

With a message of special significance to utility business leaders engaged in accounting, financial and related subjects his presentation is bound to be a bell ringer.

Another well known main speaker secured for the conference is Martin R. Gainsbrugh, chief economist, National Industrial Conference Board. Educated at Rochester and Columbia Universities, Mr. Gainsbrugh is both author and co-author of many publications dealing with the manifold phases of economics. His most recent publications are "Profits in Perspective" and "How Much Government".

He received the Award of Merit presented by The Citizens Committee for the Hoover Report, and a citation from the Freedom Foundation for publication of "How Much Government".

Mr. Gainsbrugh will discuss a subject that is in the minds of every thinking

American today, "The Current Economic Outlook."

With all of the perplexities and cross currents of present economic conditions, one must be particularly alert to any developments that might be helpful in establishing operating and financial policies that will steer a safe and conservative course for the future security and prosperity of the company he serves.

The many phases of finance and accounting embraced by the general factors of expenditure and conservation of wealth will be covered in this all important subject.

Still another main speaker, Beach J. McMillen, The Cincinnati Gas and Electric Co., has fathered perhaps the most ambitious project ever undertaken by the Accounting Sections of the American Gas Association and Edison Electric Institute. He will unveil the fruits of four years' planning, research and development of the industry-tailored package, designed to assist in teaching utility employees the techniques of making friends of customers.

With the increased turnover of personnel resulting from acutely competitive labor markets prevailing in recent years, the utilities, like all other industry, have had to place a great deal of reliance on new personnel.

Most of us know that this reliance has at times been misplaced, as evidenced by local public reaction. Mr. McMillen's discourse on the subject should be both educational and inspiring.

Certainly, it should afford us the opportunity of taking back information helpful in setting new personnel and perhaps even some old ones on the right track toward improved customer relations.

A special and novel feature of the conference will be a Wednesday afternoon luncheon held under the auspices of the

Electronic Accounting Machine Development Subcommittee.

Presiding at the luncheon will be J. H. W. Roper, Washington Gas Light Company and F. J. Porter, Jr., Consolidated Edison Company of New York, Inc.

A highlight of the meeting will be a full coverage of the application of electronic accounting machines to the accounting problems and processes of a major industrial company.

Another speaker will be J. C. Messer, The Peoples Gas Light & Coke Co., Chicago, who will discuss the preliminary studies made to date by leading utilities in order to determine the possibilities of applying these machines to utility requirements.

In this way those attending the luncheon may obtain an advanced insight into all phases and possibilities of electronic accounting equipment.

The National Conference of Gas and Electric Utility Accountants climaxes the joint efforts of the Accounting Sections of American Gas Association and Edison Electric Institute. Each of the Accounting Sections functions through a series of committees designed to deal with specific accounting subjects. The committees are further organized and grouped into two major classifications—the General Activities Group and the Customer Activities Group.

General activities

The Depreciation Accounting, General Accounting, Internal Auditing, Property Records and Taxation Accounting Committees will each contribute interesting sessions to the conference. They will also participate in a joint session on the second day which will highlight topics demonstrating the inter-dependency of these committees.

The Depreciation Accounting Committee will take an active part in the combined session of the General Activities Group by presenting Professor Paul W. McCracken who will talk on "Economic Depreciation". Although this subject has received much attention during the past few years, many misconceptions still exist as to its proper connotation and application. Depreciation reserves that are based on plant costs incurred when the dollar was worth one hundred cents will be inadequate to replace plant and equipment with today's deflated dollars. Unquestionably, consideration must be given to this economic factor. Just what

(Continued on page 39)

Down but not out

● A woman who had just completed a first aid course saw a man lying prone in the street and was shocked that passers-by paid no attention to him. So she rushed up to him and began giving him artificial respiration. Finally the man raised his head with an effort and said, "Lady, I don't know what you're trying to do, but I'm trying to get a wire down this manhole."

—Blenheim News-Tribune

Spring conference to speed sales offensive

Latest information on gas industry sales problems and progress will be etched in sharp detail during the 1954 A. G. A. Sales Conference on Industrial and Commercial Gas next month.

Chicago, hub of the nation and a center of heavy industry, will be host to the conference. Meetings will be held April 12-14 at the Edgewater Beach Hotel on Lake Michigan. Following a pattern used successfully in other years, the three-day conference will consist of two conferences in one, each lasting two days with an overlapping general session.

Among the top subjects on the program is a discussion of the PAR Program's contributions to industrial and commercial gas service. Automatic ignition, sale of specific appliances, industrial and commercial gas research developments, all will be explored.

Monday, April 12, will be Industrial Gas Day. The general session has been scheduled for Tuesday, April 13, together with the traditional formal luncheon and Friendship Room followed by a dinner and entertainment. Wednesday, April 14, will be Commercial Gas Day.

Advance programs have already been mailed together with an invitation from Charles C. Eeles, Section chairman, urging all members of the Section to attend.

Committees concerned with industrial phases of the Section's activities will meet on Sunday, April 11, preceding the conference. Commercial committees will get together on the day following the sales conference, Thursday, April 15.

Following is the advance program as the MONTHLY went to press:

Monday—April 12

Gas Clears the Air—R. J. Ruff, president, Catalytic Combustion Corp., Detroit, Michigan.

Prepared Atmospheres from Available Fuel Gases—H. N. Ipsen, president, Ipsen Industries, Inc., Rockford, Illinois.

Gas Is Really in the Production Line—Sheldon Lee, Minneapolis Gas Co., Minneapolis, Minnesota.

Mighty Midgets—W. Wirt Young, W. Wirt Young & Associates, Inc., Waterbury, Connecticut.

Tuesday—April 13

What the PAR Program Is Doing for Industrial and Commercial Gas Service—James F. Oates, Jr., chair-

BUSY MAY! Three events from the long calendar of Section activities are scheduled for the same week.

● A. G. A. will provide an Information Center at the National Foundrymen's Society Exposition in the Cleveland Public Auditorium, May 7-14.

● May 10-14, A. G. A. will sponsor the Combined Commercial Gas Equipment Exhibit—largest single exhibit of the National Restaurant Exposition. Location—the mile-long Navy Pier in Chicago.

● May 10-14, sessions of the Commercial Gas School will be held at the Hotel Morrison in Chicago.

man, The Peoples Gas Light & Coke Co., Chicago, Illinois.

Industrial and Commercial Gas—Past, Present and Future—Raymond Little, promotion manager, Gas Appliance Manufacturers Association, New York, N. Y.

Make the Public Your Partner—Eugene F. Martin, vice-president, Carl

Boyer & Associates, Inc., New York, N. Y.

Luncheon with Guest Speaker

Industrial and Commercial Gas Research Report—W. D. Relyea, assistant to sales manager—gas, Public Service Electric & Gas Co., Newark, New Jersey.

Promotion Programs—Hayes S. Walter, commercial cooking representative, American Gas Association, New York, N. Y.

Wednesday—April 14

Commercial Incineration—George E. Marble, assistant to industrial engineer, Michigan Consolidated Gas Co., Detroit, Michigan

Progress in Automatic Ignition—Ray G. Juergens, assistant supervisor, commercial sales and service, The East Ohio Gas Co., Cleveland, Ohio, and Tracy B. Madole, manager, Commercial Sales Department, Magic Chef, Inc., St. Louis, Missouri.

Dealer Relations—I. S. Anoff, president, Albert Pick Co., Inc., Chicago, Illinois.

Commercial Water Heating—R. N. Spear, Ruud Manufacturing Co., Pittsburgh, Pennsylvania.

Selling Commercial Gas Cooking Equipment

Commercial Gas

Cooking in General—L. J. Fretwell, Oklahoma Natural Gas Co., Tulsa, Oklahoma.

Deep Fat Fryers—Richard T. Keating, managing director, Frying Equipment & Supply Co., Inc., Chicago, Illinois.

Bake Ovens—Paul C. Grimes, sales manager, The G. S. Blodgett Co., Inc., Burlington, Vermont.

Industrial relations

(Continued from page 20)

little time for the things that are important."
—W. H. Powell, director of industrial relations, International Resistance Company.

● **Workers Write on Management Responsibilities**—What is management's responsibility to employees? Plenty has been written on the subject—but usually by professors, sociologists, or management. Not often have employees been asked to express themselves, except perhaps in surveys.

It is different at John W. Bolton & Sons, Inc., Lawrence, Massachusetts. Company executives asked the employees to write their thoughts on management responsibility to employees. Awards were made to the employees submitting the best essays. These best responses have been collected and printed in a booklet, "Bolton Awards, 1953". If you'd like a copy of the booklet, the company will send it on your request. Is such a technique usable in your company?

● **Practicing Supervision as an Aid in Training Supervisors**—The activity of "practice supervision" has been used among supervisors and other executives whose duties require them to get results with people. This activity is another training technique useful in any size company with the following benefits observed: Helps develop human relations

skills; generates increased interest; sharpens insight; makes human relations problems seem more real; builds confidence, and creates greater group participation. The January 1954 issue of *Factory Management and Maintenance* (McGraw-Hill Publication) discusses a survey of this subject and describes the results in an interesting way.

● **Worker Psychology—A Formula that Works**—Daniel Krakauer, vice-president, Kay Manufacturing Co., Brooklyn, New York, has become interested in a five-point checklist which to him wraps up the fundamentals of human nature.

He refers to an article by Professor A. H. Maslow, entitled "A Dynamic Theory of Human Motivation". The five needs are: (1) to stay alive and to be alive; (2) to feel safe; (3) to be social; (4) to feel worthy and respected, and (5) to do work we like.

Mr. Krakauer was impressed because it answered a big question, "Why do people act contrary to logic?" "Because," it pointed out, "we, the people, are not primarily logical." Our feelings come first. We are logical only to the extent our feelings let us be.

What were the needs of the strikers—needs that aroused such desperate feelings and such strong emotions, needs that made logic impossible? The possibilities were ticked off.

It was not primarily Number 1 the need to live, or Number 2 the need for safety. The strikers were not marginal wage earners, ex-

isting on the edge of starvation. Their jobs were reasonably secure, their working conditions good.

It also was not Number 3. That left Number 4 the need for esteem, importance, dignity, as the most likely upsetting factor. The executives came to understand that the employees' need for self-esteem, their pride, was deeply involved. The strike was a reaction to years of frustration. Management began to analyze individual grievances in light of these five needs and to understand their labor troubles.

● **Library Additions**—To be of assistance to business men and women, the Cleveland Public Library has prepared a list of some of the outstanding books of 1953. The subjects chosen reflect growing interest of business in its social responsibilities and service opportunities. The titles are grouped under the following headings: The World Around Us, Quest of the One Best Way in Management, Industrial Relations and Communications, Selling, Advertising, Window Display, International Trade Outlook, "Road Maps" to Investment, Corporation Finance, Portraits of Business and Industrial Leaders, and Self Development.

Copies of this list, together with a brief description of the contents of the books, may be obtained by forwarding 25 cents with your request to Rose L. Vormelker, head, Business Information Bureau, Cleveland Public Library, 325 Superior Avenue, Cleveland 14, Ohio.

Master key

(Continued from page 19)

let's slant them to the particular group. Women want to be shown, not told.

One of the most important things gained from this survey was that neither we, nor our salesmen, company or dealer, are doing as good a selling job as we could. Therefore, I think one of the most productive things a home service department can do is to *train* salesmen. Are they telling the right psychological story to customers?

It's pretty obvious that times have changed. Gas companies who only sold

gas are building up smart sales promotion departments both within the company and for dealers. Home service departments have kept pace and have emerged from the recipe testing days to discover that they have a God given ability to understand other women and a responsibility to interpret this understanding to sales promotion.

Home service people also have the responsibility of integrating themselves into the sales department. Don't think of yourself as the home service department; think of yourself as part of the sales department. They need you and you need them. You probably won't become sales

manager, but you could probably manage a lot of sales.

Let's begin fashioning this master key. The first ingredient is better understanding of feminine psychology by sales management and home service. Next, add some knowledge of over-all sales plans and a little masculine psychology to home service personnel. These should be mixed until all concerned agree on objectives and the best means of accomplishment. It may be necessary to do a lot of hammering here, but after all, this is the master key which locks home service into sales promotion.

Gas clothes dryer

(Continued from page 9)

duct laundry campaigns in both the spring and fall instead of just once a year. Much of the display material will list brand names. Once again the slogan "Penny-A-Load" will be employed together with heavy emphasis on low installation and operating costs.

"These slogans have been so effective," Mr. Lowe reported, "that our competitors are very disturbed. In many

cases, they have been forced to go to free installation policies on their products to counteract our advertising."

Industry comments on the Pittsburgh campaign include "excellent", "terrific", and "packs the punch necessary to do an outstanding job on gas clothes dryers."

One dryer manufacturer described the sales and advertising campaign portfolio as "one of the finest packages I have ever seen. Any dealer who receives this package should hire Brinks, Inc. for the protection of his desk as he has a mil-

lion dollars in this package if he will only realize it."

These standout promotions in Pittsburgh and Columbus are but two examples of many hard-hitting gas dryer campaigns that utilities are developing throughout the country. With the help of the A. G. A. Gas Industry Sales Promotion Plan Book for 1954, gas companies are beginning to take advantage of the base load and peak leveling potentialities of the exciting new gas clothes dryer.

Montreal to greet operating men



F. A. Hough, Southern Counties Gas Co., Los Angeles, will report progress on the ASA Code for Pressure Piping at conference session on April 21



Large volume gas measurement in the distribution industry will be discussed during general session on April 22 by R. J. Ott, Philadelphia Gas Works Div.



W. H. Weber, The Brooklyn Union Gas Co., will address conference general session on April 23 on selection and development of service supervisors

For the second time in its history, the Operating Section will hold a major spring conference outside the United States, when the Distribution, Motor Vehicles and Corrosion Conference convenes in Montreal. The four-day meeting will open on Tuesday, April 20, in the spacious Mount Royal Hotel, with an expected attendance of more than a thousand technicians and engineers from all corners of the United States and Canada.

Operating procedures, methods, problems, developments and techniques of the gas industry will be discussed and analyzed through formal papers and at informal off-the-record round-table conferences. Four fact-filled general sessions are scheduled for the mornings, with papers of all-round interest to all delegates. Of more specific interest are five open sessions devoted to company fleet operations, and one corrosion session. Eleven luncheon conferences will fill the afternoons and three inspection trips have been arranged to near-by facilities.

Program for the conference has been developed from the ground level up in order to encompass points of greatest interest to men on the operating level in the industry. The recommendations for topics to be considered were prepared by more than three hundred men serving on 13 subcommittees. These are the men who, day to day, are charged with solving the operating problems in the field. Suggestions submitted by the subcommittees were then considered by their respective parent committees, which selected those of greatest interest to the largest number of men. The parent committees then met jointly to select for presentation those subjects of greatest concern to the entire industry. As a result, the program, instead of being concerned with high-level policy matters, will be a down-to-earth review of technical trends, working procedures, and operating problems.

P. W. Geldard, The Consumers' Gas Company of Toronto, chairman of the Distribution Committee, will preside at

the Tuesday and Thursday general sessions. H. M. Blain, New Orleans Public Service Inc., vice-chairman, will preside on Wednesday and Friday. Chairmen W. W. McCartney, The East Ohio Gas Co., and J. L. Adkins, The Peoples Gas Light & Coke Co., will open the motor vehicles and corrosion meetings, respectively.

A glance at the papers scheduled for general sessions indicates the wide coverage of subjects of concern to operating men. Meter design and meter shop operations, odorization of gas for distribution systems, insulating joints, safety, large volume gas measurement, fleet operations, over-pressure protection, and static electricity hazards will be discussed by men who have actively participated in these operations. Avoiding theory and conjecture, they will review these activities in a factual manner, pointing up inherent problems and describing the manner in which they have been or can be overcome.

Also realistically planned are the open sessions on corrosion and automotive and mobile equipment. The corrosion session will hear papers on corrosion control instruments, corrosion control programs, and cathodic protection installations. Five automotive sessions will be devoted to applied hydraulics, vehicular safety, hydraulic brake locks, tire developments, wheel balancing, preventative maintenance for heavy equipment, and outdoor storage.

Getting even closer to bed-rock are 11 luncheon conferences scheduled for the four days. These conferences, which have proved so popular and beneficial in the past, are free-for-all discussions which begin at lunch and continue throughout the afternoon. Through open discussion from the floor, they enable delegates to explore the farthest corners of industry operations. Since no records are made of the discussions, delegates are free to ask any questions they wish and participants frequently offer information which otherwise would not be made



Chairman H. M. Blain, New Orleans Public Service Inc. (at head of table) meets with his Program Committee to lay plans for the Operating Section's Distribution, Motor Vehicles and Corrosion Conference to be held at the Mount Royal Hotel in Montreal, Canada from April 20 to 23

available. A number of topics have been selected for discussion at each conference but delegates may bring up and consider any subjects of interest.

Two conferences on construction and maintenance are scheduled to discuss gas leakage surveys, selection and training of street department employees, and welding methods and practices. The two meters and metering conferences will be devoted, in part, to meter design, shop records, automatic proving devices, noise reduction and safe practices in meter repair shops, house service regulators, and the resurfacing and painting of meters.

In addition to the morning open session, corrosion will be the subject of two luncheon conferences which will consider various types of pipe coatings and insulating joints. Two luncheon confer-

ences on customer service will be devoted to appliance service practices and costs, outside metering, development of low Btu pilots and range ignition systems, domestic incinerators, and labor peaks in service department operations.

Distribution design and development will also be the subject of two luncheon conferences. Important on their schedule is the problem of state and national regulatory codes, regulator station ventilation, telemetering and remote control, re-vamping distribution systems for handling increasing loads, and design of services for basementless homes.

Latest advancements in the use of plastic piping and development in the establishment of plastic piping standards will be of interest to many delegates. A special luncheon conference will be de-

voted to this subject.

Three field trips are scheduled for men who wish to visit the Quebec Hydro-Electric Commission facilities. Metering, customer service, and fleet operators will wish to take advantage of this unique opportunity to see how such operations are conducted across the border.

The commission is also arranging to entertain ladies attending the conference and will be prepared to offer advice and assistance to delegates who wish to visit local points of interest. Montreal and the province of Quebec are scenically beautiful and of great historic significance. Delegates are assured not only of a constructive conference but of a pleasant trip to a location not often visited by A. G. A. members.

Passports are not required of American tourists entering Canada. On their return, however, they must be prepared to prove to American custom officials that they have the right to enter the United States. A birth certificate, naturalization papers, or other such document is sufficient.

The Mount Royal Hotel will be headquarters for the conference. Many delegates, however, will of necessity be housed in the nearby Hotel Laurentien. Full information on hotels and reservation request cards, along with the advance program, will be mailed to all individual members of the Section well in advance of the conference.

Advance registration will again be made available to delegates. All men planning to attend the conference are urged to take advantage of this method of expediting their own registration.

Worcester utility supplies natural gas to huge forge

THE INDUSTRIAL expansion of Worcester, Mass., has been aided by the city's public utility, the Worcester Gas Light Company.

Since the beginning of the year, a huge fuel switch-over has taken place at the Grafton plant, Wyman Gordon Company. The switch-over marks a significant milestone in the comparatively young history of natural gas in New England as well as a gain in gas utilization.

When Wyman Gordon officials recently decided to expand press forging facilities to meet growing demands for aircraft and other machine parts, a fuel supply to operate the presses and furnaces was a major consideration. Wy-

man Gordon decided to change from propane-air gas usage to natural gas.

Only a few years ago, a request for gas from a customer for a load equivalent to that estimated by the manufacturer would have meant a reconsideration of the entire physical and economic picture of the utility. Among other factors, it would have meant abnormal expansion of production and storage facilities, a sudden increase in personnel and a prohibitive capital investment.

However, with a supply of natural gas available in New England, the request could be considered realistically. In a few short months, three miles of 12-inch high-pressure main were laid, a metering and mixing station were constructed on

the customer's property.

Today, the utility supplies gas to the largest individual gas customer in New England and one of the largest in the nation. Wyman Gordon's consumption is comparable to the average daily sendout of gas to all customers of gas companies serving cities the size of Cambridge and New Bedford, Massachusetts!

In operation are furnaces as wide as two car garages to heat metals 800 to 2250 F, until they become plastic enough to be formed into a desired shape. Also in operation is an 18,000-ton press, the largest of its kind in the western hemisphere, which will soon be supplanted by a 35,000 and a 50,000 press.

Industry news

Highlights of current FPC cases

Rate cases

● **Texas-Illinois Natural Gas Pipeline Co.** has put into effect a \$5,857,600 annual wholesale natural gas rate increase as of January 1. The increase, which has been under suspension since July 29, 1953, is collectible under bond, subject to refund of any amounts subsequently disallowed by the FPC. It affects all 15 of the company's wholesale purchasers in Illinois, Indiana and Missouri.

● **Colorado Interstate Gas Company**—A suspended \$6,508,000 annual wholesale natural gas rate increase was made effective January 1, subject to the filing of a written undertaking by the company to assure refund of any excess charges. The requirement for the filing of the written undertaking represents a change in the policy of the commission, which in the past has required bonds to be furnished by the companies when rate increases were put into effect—subject to refund—at the end of the suspension period under the Natural Gas Act. The Natural Gas Act provides that the commission may direct the company to furnish a bond, but does not require that this be done. However, up until now, the commission has required the posting of bonds, usually in the amount of about 10 percent of the requested increase. The new policy will effect some savings for the natural gas companies which should be of ultimate benefit to consumers.

● **Natural Gas Pipeline Company of America's** \$7,210,000 wholesale natural gas rate increase, suspended by FPC in November 1953, became effective as of January 1, 1954. The increase is subject to the filing by the company of a written undertaking to assure the refund of any charges subsequently disallowed.

● **United Gas Pipeline Co., Shreveport, La.,** has been permitted to make effective, subject to subsequent refund, two wholesale natural gas rate increases, one for \$827,000 annually, the other for approximately \$100,000 a year. The effective dates are December 25 and January 1, respectively.

● **United Fuel Gas Co., Charleston, W. Va.,** has received FPC approval of a proposed settlement of a rate case, which will allow the company to retain an estimated \$1,048,000 per year of revenues which the company had been collecting under bond since February 1953, in addition to rate increases previously allowed by the FPC. The commission on November 19 issued an order prescribing rates for United Fuel which would increase its revenues by about \$1,340,000 annually, based on the year ended June 30, 1952, over those allowed by the FPC in a decision issued last August 7. At the request of United Fuel, the commission subsequently stayed its November 19 order and reopened the record to receive additional evidence with regard to operations for the year 1953 and the 12 months ending February 28, 1954.

● **Northern Natural Gas Co.**—FPC has approved a settlement providing for an annual increase of \$6,006,000 in wholesale natural gas rates, instead of the \$13,193,000 annual increase originally requested by the company. The new rates are effective as of December 27, 1953, and are based on a six percent rate of return on net investment rate base. The settlement requires that Northern file new rate schedules and refund differences in charges (1) if the average effective federal income tax rate payable in 1954 is less than the 52 percent used in computing Northern's cost of service, (2) if the Texas Gathering Tax is held to be invalid, and (3) if subsequent actions of any regulatory agencies result in refunds to Northern or subsidiaries on amounts paid to gas suppliers. The rate settlements affect all 28 of Northern's utility customers in Iowa, Kansas, Minnesota and Nebraska.

● **East Tennessee Natural Gas Co.** has been directed to file a new rate schedule providing for an increase of \$132,939 per year instead of a proposed \$426,417 annual increase. Based on a test year ending April 30, 1953 the limited increase would provide a six percent rate of return, according to the presiding examiner. The originally proposed increase has been effective under bond since May 2 of last year.

Construction applications

● **Tennessee Gas Transmission** has filed applications with FPC for the construction of about 243 miles of 24-inch line from Hebron storage field in Potter County, Pa., to the New York-Connecticut line near Greenwich, Connecticut. Company intends to construct about 18 miles of 24-inch line connecting the Hebron Field with the Harrison storage facilities in Potter County, Pa., and Steuben County, New York. Tennessee also seeks authority to utilize an additional 15 billion cubic feet of underground top storage capacity from a proposed underground storage development with Iroquois Gas Corporation and New York State Natural Gas Company. Cost of the two projects to Tennessee Gas Transmission is estimated at \$41,660,000. The new facilities would provide additional service to existing customers of Tennessee Gas Transmission and to the following proposed new customers: Consolidated Edison, Public Service Electric and Gas, Brooklyn Union, and Long Island Lighting Company.

● **Texas Eastern Penn-Jersey Transmission Corp.,** a newly-formed subsidiary of Texas Eastern Transmission Corp., has applied to FPC for authority to construct 265 miles of 24-inch natural gas transmission line from the Oakford storage field in Westmoreland County, Pa., to Lambertville, New Jersey. The project includes a 3,300 horsepower compressor station. Total cost of project is estimated at \$30,755,300. The project will enable Texas Eastern to deliver from storage up to 136,174,000 cubic feet of gas per day to Transcontinental during the period of November 16 through April 15 each year. It will also enable Texas Eastern to increase its deliveries to several of its other customers in the Pennsylvania-Ohio area.

● **El Paso Natural Gas Company** has applied to FPC for authority to construct pipeline facilities to enable it to acquire 20 million cubic feet of natural gas daily in Regan County, Texas. Estimated cost of project is \$798,600 and would include about 32½ miles of 10½ inch pipeline.

● **Transcontinental Gas Pipe Line Corporation** has applied to the FPC for authority to construct a 19-mile, 12-inch pipeline, to enable it to take additional volumes of natural gas over a longer period of time from the West White Lake field. The proposed new line will cost \$1,042,310.

Launch ad campaign on industrial equipment code of ethics

AN advertising campaign to promote recognition of its recently adopted Code of Ethics Seal as a hallmark of quality workmanship has been launched by the Industrial Equipment Division of Gas Appliance Manufacturers Association.

The seal symbolizes the highest standards of safety, performance and durability and gives assurance to customers and regulatory bodies that the equipment carrying it has been

manufactured on sound engineering principles by reliable manufacturers of long-standing reputation.

Advertisements will appear in a wide variety of trade publications serving the major industries which use gas burning equipment in processing metals, rubber, textiles, chemicals, plastics, automotive parts and equipment, paints and other industrial commodities. Some of the ads will be sponsored by the industrial

division, while others will appear over the signatures of individual manufacturer members.

The 31 manufacturers authorized to use the seal on their products and in their advertising are being urged to give advertising support to the campaign—not merely to include the seal in advertising, but to step up advertising expenditures to provide for individual sponsorship of the division's code of ethics advertisements.

A. G. A. to produce builders' kitchen-laundry film

a PAR activity

AMERICAN GAS ASSOCIATION'S

New Freedom Gas Kitchen & Laundry Bureau has completed plans to produce the official kitchen-laundry film of National Association of Home Builders. The project will be the largest activity of its type ever undertaken by A. G. A.

The 12½-minute color motion picture will be written and directed by RKO-Pathe's chief script writer and will feature a cast of Hollywood actors. In the first national all-gas TV show, NAHB will display the film to its 225 local chapters (27,000 builders) over 315 TV stations. Showings will be in color, where

possible. In addition, the home builders group will show the film to its board of directors and regional meeting in New York (attendance 1,000) and to the NAHB Chicago convention (attendance 20,000). The film will also be made available by NAHB to the General Confederation of Women's Clubs with a membership of ten million.

A. G. A. New Freedom Bureau will offer the film to gas companies on the release date, August 20, 1954.

The same New Freedom Gas Kitchen-Laundry that stars in the film will be featured in the September *Woman's Home Companion*. Plans of the kitchen-laundry are now being made available to builders throughout the country by *Woman's Home Companion* which

will list in its September issue the names of builders who tie in.

Many gas companies are already lining up their best local builders in the \$15,000 or over class to build this gas kitchen and laundry.

Member gas companies are urged to capitalize on this opportunity to draw crowds and attention to an ideal ultra-modern gas kitchen and laundry. Newspaper mats to tie in local gas company advertising with this September magazine feature, plus reprints of the article, post cards, glossies, releases, and counter cards, all will be available from A. G. A. For further details or plans, write to the New Freedom Gas Kitchen & Laundry Bureau, American Gas Association, 420 Lexington Ave., New York 17, N. Y.

Executive development is theme of workshop

DEVELOPMENT of business executives will be the subject of the Third Annual Utility Management Workshop to be held May 16-26 by the Columbia University Department of Industrial Engineering at Arden House, Harriman, New York.

Theme of the workshop will be "Making the Most Effective Use of the Executive Resource". It will be open to executives of the utility industry and will be conducted as a problem-solving activity rather than as a straight series of lectures.

Last year's workshop was attended by the following representatives of American Gas Association member companies: Horton Lloyd Chandler, NEGEA Service Corp., Cambridge, Mass.; Stuart A. Cole, New York State Electric & Gas Corp., Ithaca; John H. Hayes and Flavius B. Jones, Equitable Gas Co., Pitts-

burgh; William Ismay and Merton C. Titus, Arizona Public Service Co., Phoenix; Howard E. Orton, New York State Electric & Gas Corp., Binghamton; Joseph A. Reynolds, The Brooklyn Union Gas Co., Hempstead, N. Y.; Howard Wakeman, Long Island Lighting Co., Garden City, N. Y.; and William Welch, Jr., Long Island Lighting Co., Westbury, New York.

Further information concerning the workshop program can be obtained from Professor Robert T. Livingston, 409 Engineering Bldg., Columbia University, New York.

Because there is such a need for executive development within the gas industry, individual companies should make every effort to send participants to this comprehensive, thought-provoking workshop.

GAMA group formed

FORMATION OF AN EASTERN manufacturers group within the Gas Appliance Manufacturers Association's water heater division has been announced.

Eleven manufacturers' representatives attended the first meeting of the group recently held in Cleveland. Harry B. Carbon of Bastian-Morley Co., Inc. was elected chairman and Lee W. Rasch of the Rasch Manufacturing Corp. was named vice-chairman.

The group was formed of GAMA water heater manufacturers who are not members of the Pacific Coast Gas Association which has long had its own water heater organization. It will discuss primarily problems of interest to eastern manufacturers and will act in the East as does its counterpart in the West.

Brooklyn launches Mrs. America—'Matchless' range campaign

AN AMBITIOUS two-pronged program supporting the Mrs. America drive and upgrading gas range sales was launched recently by The Brooklyn Union Gas Company. Company spokesmen told 500 dealers and their wives assembled at the Hotel Granada that dealer sales in 1954 are expected to top all previous records.

Mrs. America tie-ins will spearhead the company's new "matchless" gas range drive throughout its territory. Plans call for special displays on dealer sales floors, local Mrs. America contests, and a final contest to select Mrs. New York State. Brooklyn Union will give the local winner a \$1,000 U. S. Savings Bond. The New York State finalist will try for \$15,000 in prizes, including a vacation in Florida for herself and family, a grand tour of Europe, and a New Freedom Gas Kitchen and Laundry (gas industry sponsorship of the Mrs. America contest is a PAR activity of American Gas Association).

The key phrase, "matchless gas range", will set the tone of the utility's entire Mrs. America promotion. This phrase establishes the completely automatic ignition of the new gas ranges and their modernity and superiority.

Brooklyn Union dealers will tie-in with the Mrs. America drive through their own "Queen of the Line" contest. Points will be scored on



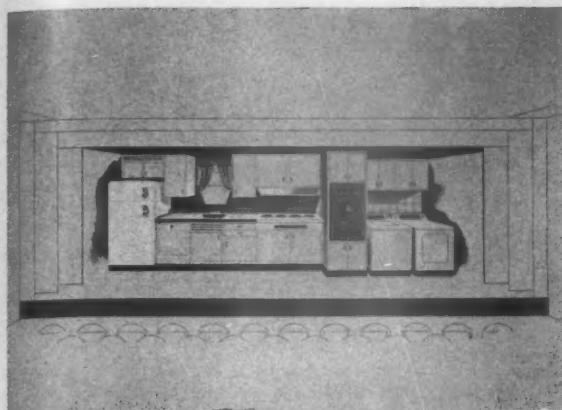
Beauty came to Brooklyn when Erna Snyder, current Mrs. America, visited giant utility plumber-dealer meeting. With her are (l. to r.): Jack Frost, Brooklyn Union's assistant manager of new business department; James Diekmann, department manager; W. T. Briggs, eastern sales manager, John Wood Co.

delivered sales between January 14 and March 31 of this year and merchandise prizes will be awarded to winners at a special victory party.

Also revealed at the Brooklyn dealer meeting was the utility's goal of 10,000 gas heat-

ing installations offered on a "Proof of Performance" basis. Brooklyn Union will pay \$100 for any "Proof of Performance" equipment that has to be removed and the manufacturer will add an additional \$50.

Houston's new auditorium exhibits southern hospitality



Kitchen installation on 10-foot revolving stage will be focal point of displays and demonstrations for sales meetings, club and civic functions



Artist's conception of hospitality house, Houston Natural's new auditorium and gas appliance showroom, to be opened for free public use this month

HOSPITALITY will be given another dimension in meaning this month when the Houston Natural Gas Corporation unveils its newest public service facility. "Hospitality House" is the name for a new 40 x 100 foot auditorium, showroom and meeting hall which will be available for the free use of club groups, civic and student organizations. It will provide a convenient location for cooking schools and dealer-distributor sales demonstration meetings.

The project is being jointly sponsored by the company's sales promotion and home service departments and was conceived by L. Proctor Thomas, Houston Natural's vice-president and general sales manager. Rolland Storey heads sales promotion for the com-

pany and Mrs. Winnell Simmons is home service director.

The front entrance of Holiday House, with its 30-foot expanse of window space, will be used as a permanent showcase of gas appliances.

The auditorium will accommodate groups up to 175 persons and is air-conditioned by a 20-ton natural gas engine compressor unit. A complete demonstration kitchen and laundry will be situated on the 22 by 16 foot stage.

The center of the stage is to be equipped with a revolving mechanism 10 feet in diameter which will permit quick-change demonstrations. Provision has been made for stage lighting facilities, adequate for telecasting.

There also are loud speaker and motion picture projection installations.

A preparatory kitchen will be housed behind the stage area so that meals and refreshments can be served to large groups. Another complete kitchen arrangement, for display purposes, will be located at the front entrance to the auditorium.

Displays of highest quality gas appliances on the stage and in the showroom area will be changed on regular schedule.

A home economist will be on hand at all times to greet visitors, demonstrate appliances and answer questions. There will be no charge for the use of the auditorium, nor will demonstrations of gas-burning appliances be a prerequisite unless specifically requested by groups using the building.

NACE to discuss gas industry problems in Kansas City

THE TENTH ANNUAL conference and exhibit of the National Association of Corrosion Engineers will be held in Kansas City, March 15-19. Gas industry problems will be discussed during a cathodic protection symposium by J. C. Howell, Public Service Electric and Gas Co., Newark, N. J.; L. G. Sharpe, Humble Pipe Line Co., Houston; and F. E. Kulman, Consolidated Edison Company of

New York, Inc.

Another feature of interest to the industry will be the pipeline group discussions, during which eight different groups will carry on discussions on individual subjects. In addition, there will be a symposium on oil and gas production and a round table discussion on pipeline and underground corrosion.

Harry R. Brough, corrosion engineer,

Mountain Fuel Supply Co., Salt Lake City and active member of American Gas Association, is chairman of the NACE Salt Lake Section. Other officers of NACE this year are: Aaron Wachter, Shell Development Co., Emeryville, Calif., president; F. L. Whitney, Jr., Monsanto Chemical Co., St. Louis, vice-president; Russell A. Brannon, Humble Pipe Line Co., Houston, treasurer.

A. G. A. announces new publications during February

LISTED BELOW are publications released during February up to closing time of this issue of the MONTHLY. Information in parentheses indicates audiences for which each publication is aimed.

GENERAL MANAGEMENT

- Report of the Corporate Secretaries Committee (for top management, corporate secretaries). Prepared by the 1953 Corporate Secretaries Committee of the General Management Section. Available from A. G. A. Headquarters, one dollar a copy.

LABORATORIES

- Directory of Approved Appliances and Listed Accessories—January, 1954 (for utilities, manufacturers, dealers and code authorities). Prepared by and available from A. G. A. Laboratories, Cleveland. Annual subscription, two dollars.

PAR

- PAR Briefs (for all gas company executives). Prepared by the PAR Committee and available free from A. G. A. Headquarters, New York.

RESEARCH

- I.G.T. Research Bulletin No. 16, Fluid Gasification of Oil (for companies interested in substitute gases). Prepared by J. M. Reid, W. J. Merwin, C. G. von Fredersdorff, H. R. Linden, E. S. Pettyjohn. Obtainable from A. G. A. Headquarters, New York or Institute of Gas Technology, Chicago, for five dollars.

STATISTICAL

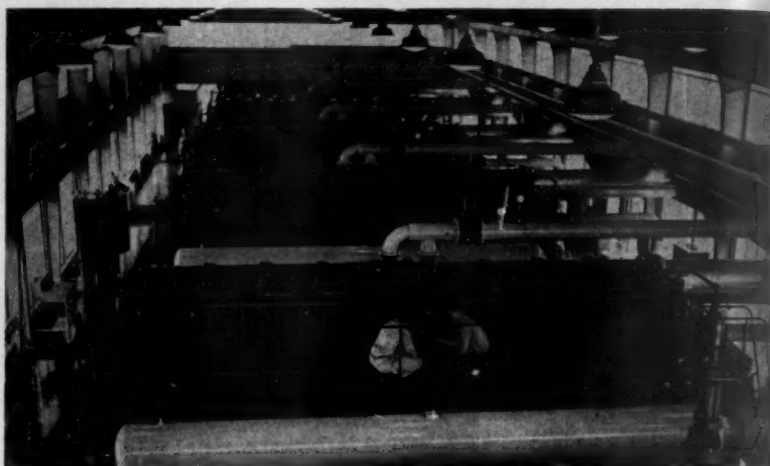
- Monthly Bulletin of Utility Gas Sales—December (for gas companies, financial interests). Available from the A. G. A. Bureau of Statistics, free.

Pipeline system growth increases Chicago area gas supply

DDAILY TRANSMISSION capacity of Texas Illinois Natural Gas Pipeline Company has been increased by 134 million cubic feet upon completion of facilities costing approximately \$33 million. Texas Illinois is one of two major long distance lines supplying gas to Chicago region utilities. The combined capacity of the company and of the Natural Gas Pipeline Company of America is now over a billion cubic feet daily.

James F. Oates, Jr., chairman of The Peoples Gas Light and Coke Co., Chicago, and board chairman of the pipeline subsidiary, stated that the Texas Illinois system now represents a total investment of \$172 million. It first went into operation in 1951. Expansion of the pipeline is an important development in the continuing program of Peoples Gas and its subsidiaries to increase and safeguard the natural gas supply for Chicago and other midwest areas served.

Gas distribution companies benefiting from the increased supply include Peoples Gas, Northern Illinois Gas Co., Northern Indiana Public Service Company, and North Shore Gas Company. In addition, Allied Gas Co., Union Gas and Electric Co., Iowa Illinois Gas and



Six 2,000 horsepower engines power Texas Illinois compressor station at Conroe, Texas. In recent expansion program, six new stations were built, main engines were added at Conroe and at each of system's four other original stations, to move more than half a billion cubic feet daily to Chicago area

Electric Co., Central Illinois Electric and Gas Co., Iowa Power and Light Co., Iowa Electric

Light and Power Company and Interstate Power Company.

Automatic ignition ranges steal the show this spring

a PAR activity

A TRIPLE-THREAT, A. G. A.-sponsored promotion of matchless automatic gas ranges, gas all-year air conditioning and gas househeating will dominate the appliance sales scene this Spring.

The range campaign will complement the highly successful autumn Old Stove Round Up, with two-way emphasis on the word "matchless"—for superior gas range performance as well as automatic ignition and operation. Smokeless broiling, baking and cooking will be presented along with the results of 34 months of field testing 1,459 gas ranges to

demonstrate the proved performance of automatic gas ignition systems.

During April and May, 11 individual, full-page, four-color advertisements of fully automatic gas ranges will appear in *American Home*, *Better Homes and Gardens*, *Ladies' Home Journal*, *McCall's*, and *Woman's Home Companion*, circulating a total of 44,154,000 consumer sales messages.

Other promotion aspects include dealer use of installed automatic ranges for live demonstrations, and showings of gas ranges in conjunction with spring fashion shows. A complete package of promotional material has been prepared for dealers in the form of news-

paper mats, art elements and copy. In addition, a 25-piece display kit to aid the salesman selling top grade gas ranges will be available.

During the same months, the air conditioning and househeating campaigns will be spurred by the theme "Only Gas gives greatest all-season comfort".

All the promotion literature including Big 10 and salesmaker booklets on ranges, househeating and air conditioning, giveaways and premiums described in the 1954 Catalog of A. G. A. Promotion Aids can be ordered from the Promotion Bureau, American Gas Association, 420 Lexington Ave., New York 17.

Board discusses gas industry problems



A. G. A. Board of Directors meets in New York on February 5 under leadership of Association President Earl H. Eacker, president, Boston Consolidated Gas Co. Mr. Eacker is seated at head of conference table

IGT course valuable

DDURING ITS FIRST year, the Institute of Gas Technology's home study course "Natural Gas Production and Transmission" has proved a valuable aid in training men for more responsible positions in the gas industry.

Since it became available in January 1953, more than 700 copies of the text have been purchased by individual enrollees and by companies.

The authoritativeness of the course as well as the various plans under which it is being offered to suit all needs have contributed to its enthusiastic reception. The course is prepared in cooperation with a special American Gas Association advisory committee of executives and gas industry specialists.

The average student can complete the course in one year, if he devotes a few hours a week to conscientious study. Cost for individual enrollment is \$75, payable in advance. Further information about the course can be obtained from the Institute of Gas Technology, 17 West 34 Street, Technology Center, Chicago.

Homemaker named queen during Public Service promotion

A QUEEN OF THE RANGE Contest promoted gas ranges during the recent Old Stove Round Up of Public Service Electric and Gas Co., Newark, New Jersey. Planned by the home economics department, the cake, pie and cookie contest was open to all gas customers except Public Service employees.

Six preliminary contests were held in the various district offices and first and second prize winners competed in the final bake-off in January. The 12 finalists matched their culinary talents against each other by preparing and baking their products in Public Service's new auditorium in Newark where 13 ranges were installed on the stage. Competition was keen for the three matchless gas ranges.

An entertaining program was arranged consisting of a cotton fashion show staged by a local store, an apple strudel demonstration by Mrs. Dione Lucas, nationally known food authority and television star, and the crowning of New Jersey's First Queen of the Range in proper costume. Walter Herlihy, radio and television personality, acted as master of ceremonies and introductions were made by Mrs. Eleanor Wiese, home service supervisor.

This promotion was considered exceedingly worthwhile to the utility for it strengthened relations between the public and the home economics department. Many favorable comments and letters were received from the 500 entrants in the contest and from others who expressed a desire to enter should another bake-off be held.

Invitations were sent to all quality range



New Jersey's first Queen of the Range is crowned after she wins a gigantic bake-off sponsored by Public Service Electric and Gas Co., Newark, during Old Stove Round Up promotion. Standing are Mrs. Eleanor Wiese, home supervisor and Walter Herlihy, master of ceremonies, radio and TV personality

distributors (not just those distributors whose ranges are merchandised by Public Service) in the area to participate in the contest. Participants supplied all of the prizes and the gas ranges used in the final bake-off. Local appliance dealers were also asked to tie in with the promotion and were supplied with window stickers and announcements.

Both distributor and dealer benefited from the publicity and advertising of the contest

and had the opportunity of displaying their ranges to a large group. The public had the rare privilege of viewing 13 glamorous top quality modern gas ranges in operation under one roof and they had the chance to discuss features and merits of each range with manufacturers' representatives.

The home economics advisers promoted baking on a gas range at all lecture demonstrations and on home calls.

LP-Gas men to sponsor Chicago convention and trade show

SPEECHES AND FORUMS on vital industry problems plus a trade show of record proportions will attract approximately 3,300 persons to the 1954 annual convention of the Liquefied Petroleum Gas Association in Chicago's Conrad Hilton Hotel, May 9-12.

The 4,500 square foot exhibit of LP-Gas appliances and equipment will reveal the latest types of ranges, water heaters, refrigerators, heating equipment, clothes dryers, incinerators, farm and carburetion equipment. For the first time, truck manufacturers will

display their LP-Gas models.

LPGA President M. L. Trotter of Carolina Butane Co., Columbia, S. C., will preside at the convention. J. R. Herrin, Jr., Coastal Butane Gas Corp., Summerville, S. C., is chairman of the arrangements committee.

Hall of Flame attracts 5,000 at Pittsburgh restaurant show

THE NATURAL GAS COMPANIES of Pittsburgh, in conjunction with the Western Pennsylvania Restaurant Association, sponsored the "Hall of Flame" at the annual Pennsylvania State Restaurant Exposition and Convention held during January.

Considered to be one of the outstanding parts of the show, the "Hall of Flame" featured the exhibits of ten of the leading manufacturers of modern, automatic gas cooking, water heating, and summer and winter air conditioning equipment together with the natural gas company exhibit.

Demonstrations of deep fat frying, broiling and grilling were a highlight of the promotion and food samples and equipment literature were available for guests. Over 5000 registered guests visited the exhibit.

The natural gas companies' activities in connection with the "Hall of Flame" were under the direction of a committee composed of R. T. McCrum, Equitable Gas Co., who acted as chairman; James W. Vance, Peoples Natural Gas Co., and Joseph N. Betz, The Manufacturers Light and Heat Company.



Peggy Walsh welcomes visitors to Pittsburgh natural gas companies' Hall of Flame exhibit at Pennsylvania State Restaurant Exposition and Convention held during January to promote gas restaurant equipment

Manufacturers announce new products and promotions

INCINERATORS

● Detroit Jewel dual action incinerator features dehydration and fast burning of refuse disposal. Gas fired, it has automatic safety pilot, and is manufactured by Detroit Michigan Stove Company.

● Duo-Therm's new models have two-bushel capacities, and are fully vented for outdoor or indoor operation. Approved by American Gas Association. Exclusive burner design is big selling point.

● Magic Chef's new gas incinerator automatically and silently reduces all trash and garbage to ashes without smoke or odor. Appropriate design for kitchen, utility room or basement. Bears A. G. A. Seal of Approval.

SPACE HEATERS

● Dravo Corporation's gas-fired space heaters now available for industrial and commercial applications, capacities ranging from 68 thousand to two million Btu per hour.

● Gas-fired furnace by General Electric provides gravity heat with some benefits of forced warm air furnaces. Available in three sizes, requires minimum floor space.

● Temco, Inc., combines maximum heating efficiency with modern design in its new gas heaters. "Television screen" upper grille delivers radiant heat, makes possible the utilization of radiant energy on circulator type heater.

● Horizontal furnaces in 85,000-100,000-140,000 Btu sizes will be featured as part of the Coleman Company line this year. Furnaces are adaptable to almost all houses and small commercial buildings, can be installed in attic, suspended from ceiling or in crawl space of basementless houses.

REFRIGERATION AND AIR CONDITIONING

● Servel introduces a direct-fired gas cooling unit that can be connected to existing forced-air gas furnaces. Two-ton capacity unit will meet requirements of average homes, offices

and small business places. Based on absorption principle.

● Magic Chef, Inc. announces new gas winter air conditioners and three conversion type burners, two in gas, one in oil. Products will carry new trademark, "Magic-aire".

RANGES

● Norge Div., Borg Warner Corp., announces model G-130, designed to provide maximum work area in little space. Thirty-inch range has 24-inch oven, smokeless broiler, appliance outlet, lamp, timer, four surface units.

● Also designed for kitchens with limited space is RCA Estate Appliance Corp.'s new 30-inch gas range. Space King offers 24-inch oven, broiler, insulated construction and many of RCA's larger-range cooking features.

● Roper's new line includes everything from 58-inch extra-capacity range to small size 22-inch rangette. Thirty-inch Space Master is notable. Also offered in the line are double-duty heater-ranges for cooking and kitchen heating. In new homes and remodeled kitchens, the "arRangeable" modular units for the convenience and maximum comfort of user.

● Cribben & Sexton's Universal ranges, for all types of gases, were introduced in January. Big news is deluxe two-oven range in medium (36-inch) size and in medium price field. Range boasts 17-inch and 13-inch ovens.

CLOTHES DRYERS

● Roper adds improvements to "Dry-Aire", its fully automatic gas clothes dryer. Noteworthy are touch-release door latch and clothes drying chart, plus other design features in last year's model.

TESTER

● Speedy-Kit, by Calgon, Inc. and Hagan Corp., Pittsburgh, is fast, sure method of testing water hardness. Expected to be of use to appliance and utility company home economists, and service men. Test procedures based on widely-used Schwarzenbach methods.

BULLETINS, BOOKLETS AND PROGRAMS

● *City Type Gas Service for You* lists advantages of LP-Gas service in the home. Available from American Meter Co., Philadelphia for handout promotion.

● Increased dealer training program to help salesmen cope with competition has been inaugurated by Coleman Co., Inc., Wichita. Nineteen week-long sessions for 65 dealers a week will assemble in Wichita, beginning February 8.

● *Idea Exchange*, edited by Dick Geier, with aid of advertising, sales promotion and public utility departments, highlights successful appliance sales programs by utility companies. Published by and available from Servel, Inc., Evansville, Indiana.

● Special department to develop new home appliances is being set up by Norge Div., Borg Warner Corp., in Muskegon Heights, Michigan. G. P. Kennedy will direct research.

● Expanded advertising and promotion program will back Cribben and Sexton's Universal gas range line. It will be largest program ever undertaken by company to give merchandising assistance to dealers.

● New 16 mm sound color film, "Burkay, Your Winning Play", has been released by Permaglas Div., A. O. Smith Corp., to train salesmen to size and market Burkay commercial water heaters. Another new facet of company's promotion plan is traveling window display kit to promote commercial water heating.

● Chambers ranges will now have gold-plated nameplate, so that consumers can quickly recognize the brand in store windows and display kitchens.

Another Chambers bid for the market lies in its \$5,200 contest in the New York area. Women must complete sentence why they would like to own a Chambers range. Prizes include gas ranges, built-in gas cooking units, ironers, roasters and aprons.

Corrosion prevented

ROCKLAND LIGHT and Power Co., Nyack, N. Y., is supplying electric service to provide corrosion protection to about 150 merchant ships of the National Defense Reserve Fleet anchored in the Hudson River off Jones Point, New York.

Part of an emergency standby fleet, the vessels are continuously inspected and preserved above the water line by specialized working crews of the Maritime Administration. This agency has also been delegated the responsibility of underwater protection against corrosion through cathodic application of 24-volt direct current to the ships' bottoms.

Far more economical than drydock and paint, the cathodic process is not harmful to human or marine life and insures underwater protection to the hulls.

Mid-West gas group to meet in Des Moines

THE FORTY-NINTH ANNUAL meeting and convention of Mid-West Gas Association will be held in Des Moines, Iowa, March 15-17. Everett E. Baxter, Central Electric and Gas Co., Lincoln, association president, will be general chairman of the convention. M. B.

Cunningham, Iowa Power and Light Co., Des Moines, first vice-president, will serve as program chairman.

The thirty first Mid-West Gas School and Conference will be conducted at the Iowa State College, Ames, September 8-10.

ASA yearly report heralds progress in '53

THE ANNUAL REPORT of American Standards Association announces the coordination and approval of 266 American Standards in 1953. Among the most important new standards were the requirements for gas conversion burners in domestic ranges. The widely-used standard for steel pipe flanges and flanged fittings, B16.5, revised this year,

represents a noteworthy advance.

American Standards are the product of expert representation of all interested groups. Some come from committees organized expressly for the purpose, while others come from long-established technical societies and trade associations. Over 1400 standards are now in use throughout the United States.

A. G. A. school service program wins praise of educators

a PAR activity

THE FAMILIAR down-to-earth gas flame is proving to be the key to a world of excitement for thousands of American school children—many of whom will be entering business and industry in the next few years. Through the A. G. A. Educational Service Bureau, gas companies throughout the country are being offered a complete program to acquaint young people with the role that gas plays in our economy. All materials have been prepared in collaboration with the National Science Teachers Association and under the guidance of leading educators.

The program, started last fall and fully described in the October 1953 MONTHLY, page 16, is extremely popular with the students and their teachers.

Proof of the sound educational value is the praise coming from the schools. Hubert M. Evans, professor of natural science, Teachers College, Columbia University says, "I am indeed pleased and enthusiastic over the new materials. . . . I think that they do represent a departure from the usual type of material prepared by industry, and they definitely do show that those who planned the materials had the modern teacher and modern school in mind."

From Denver, the director of the department of instruction, Louis H. Braun, writes, "We think the map would be valuable to senior high school teachers in such subjects as Amer-

ican history, economic and commercial geography. It should be of real assistance in the difficult problem of teaching pupils the locations of natural resources and the complex and ingenious means that have been devised to bring them to consumers.

"The small poster . . . we think will be valuable to our elementary school teachers . . . in introducing their pupils to the simpler aspects of the effects of our technological civilization upon the everyday life of people. Teachers will find in the gas meter diagram a device that will help them in their arithmetic work with the decimal system."

The Advisory Council on Industry-Science Teaching Relations of the National Science Teachers Association reports, "This material has been used by our chemistry teachers, our general science people and some of our junior high mathematics people. They have been uniformly generous in their praise of the materials."

Thus, the A. G. A. Educational Service Bureau's program, including its many facets of field trips, movies, diagrams, maps and so forth, is making good public relations sense. The gas company executive who has not yet taken advantage of this new A. G. A. program can benefit by canvassing the schools in his territory, offering the kit. Not only will personal visits of this type help to improve relations with the school system now—they will pave the way towards good customer relations with tomorrow's citizens.

NEW TEACHING KIT FREE!

"SCIENCE IN ACTION IN THE GAS INDUSTRY"
teaching kit now available upon request to science teachers in Detroit area

This free kit contains the following teaching aids:

1. Film strip—35 mm., 42 frames—"NATURAL GAS—Science Behind Your Stove"
2. Teacher's text—"FILM FACTS"
3. Wall chart—22" x 29"—"Natural Gas Pipelines in The United States"
4. Wall chart—22" x 29"—"Flowpath of Natural Gas From Well To Burner"
5. Forty student hand-out sheets for classroom distribution
(Additional sheets are available on request)

This complete kit will be sent free of charge, upon request to Michigan Consolidated Gas Company, to science teachers in the Detroit area. Materials are sent out in heavy-duty, screw-type mailing tube, suitable for easy storage when not in use. The Gas Company invites interested science teachers to send their requests for this teaching aid material to:

MICHIGAN CONSOLIDATED GAS COMPANY
Educational Department
415 Clifford Street
Detroit 26, Michigan

MICHIGAN CONSOLIDATED GAS COMPANY

Serving 700,000 customers in Michigan

Michigan scientists and teachers read about industry's educational service in advertisement placed by Michigan Consolidated Gas Company in Metropolitan Detroit Science Review

Seattle employees drill against raid danger



Mrs. Ina Lukens, secretary to N. Henry Gellert, president of Seattle Gas Co., is rescued by firemen from simulated gas company fire which "broke out" during city's first all-out air raid drill in February

NEGA meets in Boston

MARCH 25 AND 26 are important days for New England gas men to remember. Those are the days of the New England Gas Association meeting, to be held in the Hotel Statler, Boston.

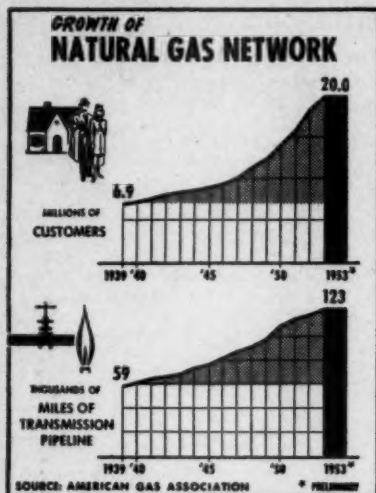
Featured on the program will be speeches by such outstanding gas industry leaders as Sheldon Coleman, J. L. Johnson and Earl H. Eacker. Mr. Coleman, president of The Coleman Co., Inc., Wichita, is president this year of Gas Appliance Manufacturers Association; Mr. Johnson, vice-president of Providence Gas Co., Rhode Island, is now president of New England Gas Association and Mr. Eacker, president of Boston Consolidated Gas Co., is the 1954 president of American Gas Association.

Three social functions will highlight the down-to-business atmosphere of the annual meeting. On Wednesday evening, American Meter Company will entertain before the annual NEGA Directors' Dinner, while on Thursday a party for speakers, NEGA board, past-presidents and gas industry officials will be held.

The program has been arranged by NEGA's 1954 Annual Meeting Program Committee, under the chairmanship of Fred H. Faulstich, Springfield Gas Light Co., and the vice-chairmanship of Andrew W. Johnston, Boston Consolidated Gas Company.

Further program details can be obtained from Clark Belden, managing director of NEGA at 10 Newbury St., Boston.

Pictograph available



New pictograph shows how gas customers have almost tripled and pipeline mileage has more than doubled since '39. Limited prints and mats are available from A. G. A. Public Information Bureau

Chicago company reports growth during '53

THE PEOPLES GAS Light and Coke Co., Chicago, and subsidiary companies have announced substantial progress in the system's broad expansion program during 1953. The eventual goal of the program is to supply sufficient natural gas for the Chicago region to meet all firm customer needs.

An important project in the program is the construction of more than \$35 million worth of facilities which will increase the daily transmission capacity of Texas Illinois Natural Gas Pipeline Company's 30-inch line by 130 million cubic feet of natural gas daily.

Another important advance was the use of the Herscher underground storage field of the Natural Gas Storage Company of Illinois,

another Peoples Gas subsidiary. Since injection began last April, 12 billion cubic feet of gas have been injected into the deep reservoir sandstone. Engineers and consultants are continuing their tests and the current winter season will be considered experimental in the development of the project.

Due to the expanded natural gas supply, and increases made in manufactured gas facilities, the company was able to extend single-family space heating service to an additional 30,000 Chicago customers. About 135,000 single family Chicago residences now have gas heat, with a waiting list of more than 100,000 applicants.

A.G.A. report wins printers' award

THE AMERICAN GAS Association's Annual Report for 1952 has won an Award of Special Merit from the New York Employing Printers Association, Inc. It was among a limited number of printed pieces to be cited by a jury of graphic arts experts as outstanding in its classification. It was on view at the 12th

Exhibition of Printing in The Biltmore Hotel New York, January 17-24.

Also on display as good examples of effective printed communications were A. G. A. booklets, *A Public Relations Program for the Gas Industry*, and *Market Research*.

Dravo scholarships benefit three Pennsylvania colleges

THREE PENNSYLVANIA colleges will share in the annual \$12,000 Dravo Corporation Scholarship Program. Arrangements have been completed for awards at Carnegie Institute of Technology, Lehigh University and the

University of Pittsburgh.

Scholarships at Carnegie Tech and Lehigh are in engineering, with those at Pitt in business administration. The program provides for two upper-division scholarships of \$1500 in

each of the three schools. Of this amount, \$1000 will go to each recipient for tuition, books and other expenses, while \$500 will go to each institution's general fund.

API publishes revised pipeline field welding standard

THE AMERICAN Petroleum Institute announces the publication of the second edition of 1104, *Tentative Standard for Field Welding of Pipe Lines*. The revised edition incorporates changes resulting from comments on the first edition issued in 1953. Principal changes are in the radiographic section. Several eastern

state commissions referred to the first edition of this publication in setting up their rules and regulations governing the construction and operation of gas pipelines.

The API 1104 standard and its latest revision were prepared by a committee representing the American Gas Association, Pipe Line

Contractors Association, National Electric Manufacturers Association and the American Petroleum Institute.

Copies may be ordered from J. A. McNally, American Petroleum Institute, 50 West 50 Street, New York 20, for 50 cents a copy.

Two gas company managements change ownership

NEGOTIATIONS have been completed by Texas Eastern Transmission Corporation to purchase all the stock of Triangle Pipeline Company. Triangle is engaged in transporting petroleum products from East Texas, North Louisiana and South Louisiana gasoline and

plants and refineries to points on a pipeline system which extends to Arkansas.

In Massachusetts, it was announced that a purchase agreement was signed recently by Athol Gas Company and Richard Sullivan of Boston for the sale by Athol Gas of all its

assets for an undisclosed price.

The agreement to sell the local gas company was disclosed by Edmond F. Leach, manager and director. The purchaser, Mr. Sullivan, plans to operate the property as Midstate Gas Co., supplying and maintaining service in Athol.

Future of industry discussed before financial analysts

HERE are several factors to be considered when looking at the long-range future of the gas industry, reports Lyon F. Terry, vice-president, The Chase National Bank of the City of New York. Mr. Terry's comments are from a paper he presented before The National Federation of Financial Analysts Societies in New York City, January 28, 1954.

(1) The increase in supply of natural gas available to the industry will, in my judgment, support a considerable further expansion of the markets.

(2) Most of the competitive forces which have caused the rapid growth of the gas business will continue to be effective.

(3) The field price of natural gas, however, is rising slowly and in the course of years will rise substantially, which will reduce the competitive advantage.

(4) A gradual increase of ten or 15 cents in the cost of natural gas will not greatly affect sales to residential consumers now comprising 57 percent of total revenues of the gas utility companies.

(5) Use of natural gas for space heating offers a large potential market for expanding sales at good prices for many years. This market has been and will continue to be advanced by the increase in the standard of living.

(6) All the basic forces reviewed are long-

time factors that have developed over the years and should change very slowly.

(7) The growth of the gas utility industry at the remarkable average rate of 10.3 percent per year since 1945 cannot be expected to continue indefinitely. But it is not through by any means. More gas will be discovered and more pipelines will be built. The rate of growth will no doubt slacken gradually, but the future potentialities are of a large order. Considering the 50 years of growth of natural gas production, it appears reasonable to me that the country's production of approximately nine trillion cubic feet in 1953 may readily reach 12 or 14 trillion by 1960.

Naff follows Hargrove as Texas Eastern president and director

GEORGE T. NAFF has been elected president and a director of Texas Eastern Transmission Corp., Houston, to succeed the late R. H. Hargrove.

Mr. Naff, who has been first vice-president of the company since 1948, is both a lawyer and a graduate engineer. He was formerly a partner in the law firm of Wilkinson, Lewis, Wilkinson and Naff of Shreveport, Louisiana. He was connected with that firm or with

United Gas System from 1928 until 1947, and served as vice-president and general counsel of United Gas from 1941 until 1947. During all of his professional and business career he was intimately associated with Mr. Hargrove.

Mr. Naff received a bachelor of science degree in civil engineering in 1924 from Alabama Polytechnic Institute, and he was graduated from the University of Alabama Law School in 1927.

Widely known in financial groups and in the gas industry, Mr. Naff was recently appointed a member of the Gas Industry Advisory Council. He is a member of the Independent Natural Gas Association of America, American Gas Association, and the Mid-Continent Oil & Gas Association. He is a director of Texas Eastern Production Corp., Wilcox Trend Gathering System, Inc., and other Texas Eastern affiliates.

Personal and otherwise

LP-Gas group elects chairman and changes name

JAMES E. PEW, manager of the natural gas and natural gasoline department, Sun Oil Co., Philadelphia, has been elected chairman of the National Committee for LP-Gas Promotion. He succeeds Lee A. Brand, vice-president, Empire Stove Co., Belleville, Ill., who has held the post since 1950.

Adoption of a new name for the organization, National Council for LP-Gas Promotion, was another major item of business at a meeting held in Chicago during January.

K. R. D. Wolfe, vice-president, Fisher Governor Co., Marshalltown, Iowa, became chairman of a newly constituted executive committee, and Robert E. Borden, secretary of the national committee since its inception in November, 1949, was elected secretary of the council. Mr. Borden also serves as director of the LP-Gas Information Service, Chicago.

High tribute was paid to Lee Brand, retiring chairman.

Papich succeeds Adams as A. G. A. safety consultant and secretary

RAUEL N. PAPICH, formerly field representative for safety services with the American Red Cross has been appointed safety consultant of the American Gas Association. He succeeds William H. Adams, who retired at the end of 1953.

Mr. Papich was graduated from University of Texas with a B.S. degree in physical education. Joining the national staff of the American Red Cross in 1942 as field representative, he covered the states of Texas, Oklahoma and Arkansas. He entered the armed forces in 1942 and served two years in Europe with the 101st Airborne Division as a parachutist. He returned to the United States in 1945 and was assigned to duty in Europe by the National Red Cross as field representative for safety services. In this capacity and later as director of Red Cross Safety Services in 1948, Mr. Papich directed

the establishment of military safety courses throughout the Armed Forces in Europe at that time. He returned to the U. S. in 1950.

He became director of safety services for the Harris County Chapter of the American Red Cross in Houston, Texas in 1951. A year later he returned to the national staff of the American Red Cross, covering Colorado and Michigan.

In 1953, Mr. Papich was given a special assignment with the U. S. State Department's Voice of America Program. He served as part of a two-man team sent to the Voice of America Radio Relay Bases throughout the world. In company with George MacDonald, of the National Safety Council, also a member of the A. G. A. Accident Prevention Program, he helped make a survey to establish an accident prevention program for the American personnel assigned to the radio relay bases.

The team visited Tangier, Morocco; Athens and Thessalonika,

Greece; Munich, Germany; London, England; Honolulu, Hawaii; Manila and Northern Luzon, Philippine Islands; and Okinawa. At these bases the team established safety programs for the American personnel under the Voice of America Program.

In his new capacity he will serve as secretary of the A. G. A. Accident Prevention Committee of which Leo Nuhfer, The Peoples Natural Gas Co., Pittsburgh, is now chairman.



Raoul N. Papich

Malone joins Scranton-Spring Brook as sales promotion head

GORDON J. MALONE has been appointed director of sales promotion of The Gas Co., a division of Scranton-Spring Brook Water Service Co., Wilkes-Barre, Pennsylvania.

For the greater part of his merchandising

career, Mr. Malone has been identified with Servel, Inc., Evansville, Indiana, as promotion manager, district manager, Eastern regional sales manager, national sales manager. Most recently, he was Servel product manager.

Mr. Malone has been an active member of American Gas Association, New Jersey Gas Association and Pennsylvania Gas Association.

He is a graduate of the University of Maine.

Colorado Interstate appoints Barrett vice-president of sales

S. CASSELL BARRETT has been named vice-president in charge of gas sales for Colorado Interstate Gas Co., Colorado Springs.

Mr. Barrett, formerly manager of gas sales, is taking over the post vacated by the resignation of W. R. Beardsley.

He joined Colorado Interstate in 1953 after working for more than 11 years with Stanolind Oil and Gas Co., Tulsa.

Four complete both parts of A. G. A. gas practice course

ARTHUR E. GARBER JR., Boston, Fred Thoenes, Jr., Livingston, N. J., John C. O'Keefe, Pompton Plains, N. J., and Ralph Etnier, Wayzata, Minn., have recently completed the course in American Gas Practice. Given under the auspices of American Gas Association, the course is conducted by Dr.

Jerome J. Morgan, consulting engineer. The course is divided into two parts: production of manufactured gas; and distribution and utilization of city gas. All the men have successfully completed both parts of the course.

Mr. Garber, assistant chief chemist, Boston Consolidated Gas Co., holds a certificate

from the Franklin Technical Academy, Boston. Mr. Thoenes and Mr. O'Keefe are both graduates of Stevens Institute of Technology and engineering employees of Public Service Electric & Gas Co., Newark, New Jersey. Mr. Etnier is district representative of the suburban division, Minneapolis Gas Company.

Hendee is man of year

ROBERT W. HENDEE, retired president of the Colorado Interstate Gas Co., former president of American Gas Association, and long a leader in industry affairs, has been named Colorado Springs Man of the Year for 1953. The annual award is sponsored by the city's newspaper, *The Gazette-Telegraph*.

The glowing account of Mr. Hendee's career highlighted his interest in civic projects.



Robert W. Hendee

Elect Kurdelski Residential Section chairman

WALTER H. KURDELSKI, sales manager, Michigan Consolidated Gas Co., Grand Rapids, Mich., was elected chairman of the Residential Gas Section of the American Gas Association at a meeting of the Board of Directors on February 5. Mr. Kurdelski, who was elected vice-chairman of the section at the annual convention of A. G. A. at Atlantic City last October, will succeed Raymond Little, who resigned to become director of sales promotion of the Gas Appliance Manufacturers Association.

Mr. Kurdelski joined the Michigan Consolidated Gas Company in 1932, advancing to supervisor and then to assistant sales manager in charge of appliance sales. In 1947 he

was appointed residential sales manager and was appointed district sales manager in 1954.

He has been active in Association affairs for many years and has served on several important A. G. A. committees. For two years he served as chairman of the A. G. A. Gas Laundry Equipment Committee. He is a member of the Mid-West Regional Gas Sales Council.



W. H. Kurdelski

Names in the news... roundup of promotions and appointments

Utilities and pipelines

John T. Snyder, Jr., is now chief financial officer of Southern Production Co., Inc., Fort Worth, Texas. Mr. Snyder has been a director of the company since 1950 and vice-president since 1952.

New England Electric System announces that Wilder Moore is manager of the Wachusett Gas Co., Leominster, Mass.; Ernest Bulpitt is assistant manager of North Shore Gas Co., Beverly, Mass.; Malcolm Macauley is assistant manager of Norwood Gas Company. Also, LeRoy Moore is local manager of North Shore, in Gloucester.

Austin Stevens, formerly of the *New York Times*, will handle press information of Panhandle Eastern Pipe Line Company through its Washington office. Mr. Stevens, a member of *The Times* staff for 17 years, was assigned to the newspaper's Washington Bureau for the past four years.

Manufacturers

George W. Stevenson is manager of West Coast operations, American Meter Company. He has served the company for 26 years. **James W. Burg** is now factory manager of the company's orifice meter assembly plant and warehouse in Dallas.

Bastian-Morley Co., LaPorte, Ind., an-

nounces that **Harry B. Carbon** has been elected president. Mr. Carbon is 1954 chairman of GAMA's Gas Water Heater Division.

Fred A. Kaiser has been named executive vice-president and director of Detroit-Michigan Stove Company. He has served the company since 1931, and has been vice-president since 1948. **J. R. Palomo** is now export manager of the firm.

William L. Hahn, president of Maytag West Coast Co., distributor for The Maytag Co., has been named chairman of the board of the West Coast organization, while **John M. Wyman**, former vice-president, has been named president.

Mueller Climatrol of Milwaukee recently made **Curt Hoering** assistant to the vice-president in charge of manufacturing.

Magic Chef, Inc. has created two new sales divisions in Pittsburgh and Cincinnati. **E. W. Link** will direct activities in the Pennsylvania location, while **E. L. Massing** will manage sales in the Ohio territory.

John D. Schuman is advertising manager for Norge Div., Borg-Warner Corp., Chicago. He will fill vacancy created by resignation of **David H. Kutner**. **Charles F. Mikuta** is sales promotion manager and **Russell F. Willie** is assistant advertising manager. **Ora Wright** joins the firm as a home economist.

Penn Controls, Inc. announces that **Ora E. Johnsonbaugh** is now service engineer, replacing **K. W. Fisher** who was named district manager for the Dallas territory.

Harold R. Zeamer is manager of Richmond Radiator Company's Philadelphia sales office. He succeeds **Norman Rowen**.

Scaife Co., Oakmont, Pa., has named **E. L. Casey** vice-president in charge of operations. **W. T. Bryson** will be sales supervisor with headquarters in Atlanta, Georgia. **Dean Wagoner** continues as sales representative of gas cylinder products in North and South Carolina. **Frank F. Brown** is sales representative in the New York territory and **M. F. Geir** is cylinder specialist at the home office in Oakmont.

Servel has made several personnel announcements in recent weeks. **H. R. Nielsen** is manager of air conditioning division; **Allen E. Apple** is manager of industrial relations; **Edward L. Hart** has joined the organization as manager of civilian quality control and **Wallace J. Hoeing** is sales manager of the air conditioning division.

Temco, Inc., Nashville, has named **C. F. Bauman**, formerly manufacturing superintendent, director of manufacturing. **Richard Douglas** has been promoted from production manager to director of purchasing. **Cecil G. Stokes** has joined the company as director of production engineering.



Dr. Ralph E. Brewer

chemical engineer on coal research at the Bureau of Mines, Pittsburgh, died on January 27 at the age of 61.

Dr. Brewer was a graduate of Simpson College, Purdue University and the University of Michigan. He served the Bureau of Mines since 1933, giving special attention to fundamental research on the properties of coal. During his career, he contributed comprehensive publications on this subject.

Oliver Smith

associate manager of gas production activities, Consolidated Edison Co. of New York, Inc., died on January 27 of a heart attack. He was 64 years old.

A member of the engineering staff of the utility since the early 1920's, Mr. Smith became one of the company's leaders in the gas production field and gained a nationwide reputation in the manufactured gas field.

He joined a predecessor company of Consolidated Edison in 1912 as a superintendent's assistant. Two years later, he was named assistant superintendent, assistant manager of gas production, 1942, associate manager, 1943.

Mr. Smith was a graduate of Lehigh University. He was active in the Operating Section of American Gas Association and served this year on the Gas Production Committee.

Dr. Paul G. Agnew

vice-president and secretary of the American Standards Association until his retirement in 1947, died on January 15, at the age of 72.

Dr. Agnew, one of the leaders in the formation of the association, continued to serve as a consultant until 1951 and in the same year, was named to receive the first Standards Medal given by the ASA.

Dr. Agnew helped found the present International Standardization Organization which is devoted to helping backward countries raise their industrial potential.

He worked as a physicist for the National Bureau of Standards before joining the American Engineering Standards Committee, predecessor to ASA. In 1919, when ASA came into being he went with it as a vice-president and secretary.

Tom Gibbons

director of advertising and sales promotion, Coleman Co., Wichita, died on January 25 from injuries received in an automobile accident. He was 40 years of age.

Before joining Coleman last May, Mr. Gibbons was director of marketing for Caloric Stove Corp., Philadelphia, after six years as advertising manager of Magic Chef, Inc., St. Louis.

Mr. Gibbons was widely known in the ap-

pliance industry through his active participation in Gas Appliance Manufacturers Association, American Gas Association and Liquefied Petroleum Gas Association.

Survivors include Mr. Gibbons' wife, Claire, three children, his parents, three brothers and one sister.

Dr. Calvert C. Wright

professor of fuel technology, Pennsylvania State College, died suddenly at the age of 48 on

February 1.

Dr. Wright was stricken with a coronary occlusion while he was preparing a film on anthracite coal for the Anthracite Industry of America.

Dr. Wright had been a faculty member at Penn State since 1932. Active in American Gas Association technical circles, he worked closely on the recently published *Current Status of Tonnage Oxygen* as well as other Operating Section and research projects.

Accountants focus

(Continued from page 24)

the extent of such consideration should be is where divergence of opinion enters the picture. This presentation should help clear the air. On the following day a panel discussion will be conducted to bring out remaining questions.

Other subjects to be discussed by the Depreciation Accounting Committee include "Service Lives or Salvage Ratios for Gas and Electric Properties" by Fred Eckstein, New Orleans Public Service, Inc.; "Depreciation on Construction Work in Progress Actually in Service" by Maurice Scharff; "Court and Commission Rulings in 1953" by A. G. Maihofer, Detroit Edison Co., and "Significance of Computed Depreciation Reserves" by G. P. Logan, Philadelphia Electric Company.

Sessions of the Depreciation Accounting Committee will prove valuable to management personnel as well as those directly engaged in this field.

The theme of the Internal Auditing Committee sessions will center on management's evaluation of internal auditing, presented both from the educational as well as the professional viewpoint. As a highlight of the program, Professor William T. Jerome, III, director of the Army Controllershship School of Syracuse University, will discuss the field of internal auditing as an aid to management. In addition, a panel composed of three management representatives will relate their personal experiences with internal auditing and the opinions of its practitioners. Those attending the sessions of the Internal Auditing Committee will be encouraged to participate in the discussions and to share their experiences, views and opinions with the group.

The program of the General Accounting Committee will include reports and discussions on subjects of timely interest. Here are some of the highlights.

The "How, When and Why in Ac-

counting for Materials and Supplies" will be discussed by Ohmer Ullery, The Ohio Fuel Gas Company. Such matters as current methods used within the industry in accounting for materials and supplies, machine accounting applications, reports issued, accounting for stores expenses and other related information will be presented.

Experiences of companies in determining working capital allowances in recent rate cases will be described by W. C. Young, Public Service Electric and Gas Co., Newark, N. J. He will review the different methods that have been used in computing the working capital allowances.

R. J. Plourde, Detroit Edison Co., will highlight a report on financial reporting practices and trends as disclosed by an analysis of the 1952 annual report to stockholders published by fifty-six gas and electric companies. He will also present the changes and trends indicated by available 1953 annual reports.

"The Extent and Scope of Reports to Top Management" will be presented by F. J. Labanca, New Orleans Public Service, Inc. His discussion will outline the results of a 20 company study and will highlight the unusual situations rather than the commonplace.

"It Pays to Watch Your Form" is the titillating title chosen by H. M. Ruth, Jr., Consolidated Gas Electric Light and Power Company of Baltimore to describe how control of record forms can reduce costs and prove advantageous to efficient administration.

"Man-Hours are Important in Forecasting" will be reported by R. M. Kelson, Boston Edison Company. Mr. Kelson will delve into the principles underlying responsible forecasting and will explain the importance of manhour forecasts and their relationship to dollar forecasting.

In addition, significant accounting changes proposed in the revised NARUC classification of accounts for both the electric and gas industries will be dis-

cussed by an authority on the subject.

The Property Records Committee is developing a program consisting of three sessions. At the first session, three papers will be presented on the theme "Property Records Departments". One will cover the functions of property records departments, another the type of personnel required, and the third will discuss the procedure manuals which a property records department might prepare to acquaint the personnel of related departments with the requirements of the plant accounting and property records system.

At the second session, F. W. Ross, Pennsylvania Power & Light Co., will be moderator of a panel discussion on plant accounting and property records problems.

The final session will deal with methods of handling specific phases of plant accounting work. Papers will be presented on "Underground Continuing Property Records", "General Equipment Records", "Age Records" and "The Use of Punched Cards in Property Records Work".

Perhaps no subject in the public utility field has more far-reaching effects than adequate accounting for property, plant and equipment. Investment of capital in plant represents the largest item appearing on any utility balance sheet and forms the pivot around which many other factors revolve. Its significance as the major element in the formulation of the service rate base is vital to profitable operations. Every department of the utility is affected to some extent by property records. Therefore, the sessions of this committee should be appealing to all associated with the utility industry regardless of their field of endeavor.

The Taxation Accounting Committee will continue its practice of presenting subjects which cover a wide variety of tax accounting and depreciation problems. The high cost of government, with its resultant high tax cost, has become an increasingly pressing problem in management's efforts to retain a favorable

earnings position. It is a well-known fact that the gas and electric industries, because of rate regulation, are not in a position to readily pass the cost of increased taxes on to their consumers as are a number of other industries. Consequently, greater emphasis is being placed on tax planning and taxation accounting than was necessary when tax rates were lower. In view of these circumstances, it is expected that the Taxation Accounting Committee sessions will be an attraction to many persons attending the conference.

Customer activities

This group, composed of the Accounting Employee Relations Committee, and the Customer Accounting, Collections and Relations Committees, all of which deal with commercial office accounting and related customer service phases of utility operations, has developed sessions of particular value to persons interested in the customer contact field.

A luncheon meeting on Tuesday, April 13, will be a five-star feature of the Customer Accounting Committee's session. "Does Field Supervision of Meter Readers Pay?" will be answered by W. F. Ammann, Toledo Edison Co., and E. J. Oppelt, Union Electric Company. New Developments in the field of "Cost Control by Measurement of Man Hours" will be discussed by R. A. Krauss, The Cleveland Electric Illuminating Company. H. C. Bullion, The Detroit Edison Co., will present current trends in the preparation of "Billing Frequency or Rate Analysis Reports". An outline of the "Minimum Requirements for Controlling Meters and Customer Count" will be given by P. A. Leach, United Gas Improvement Company and A. B. Wilson, Georgia Power Co., will summarize the material in the procedure manual on "Receipt, Distribution and Posting of Cash Payments". The two latter subjects have been developed by active subcommittees of the Customer Accounting Committee.

J. D. Green, Philadelphia Electric Co., and H. E. Wagner, Public Service Electric and Gas Co., have originated a systematic method for training personnel which involves the use of skits. They will collaborate in their presentation, entitled "Let's Take the Brakes Off Training".

The Accounting Employee Relations Committee will continue to have an active part in the conference. A paper on "Indoctrination of New Supervisors"

has been prepared for distribution. This topic will be introduced by Dan Maloney, The East Ohio Gas Company at the joint session of the Customer Activities Group on April 13.

The committee is also planning an open discussion meeting on the general subject of "Employee Attitudes and Morale". Harold E. Steiner, Niagara Mohawk Power Corp., and J. Douglas Elliott, Detroit Edison Co., will preside. Specific topics and discussion leaders are, "Are Rest Periods Productive?" by Joseph F. McCahon, Philadelphia Electric Co.; Rules vs. Administrative Judgment" by George A. Ford, The Connecticut Light & Power Co.; "Controlling Absences" by George Callens, Detroit Edison Co., and "The Employees Which Management Pay" by Thomas J. Blake, The Peoples Gas Light and Coke Company. After a brief introduction to each subject, the discussion leader will devote full time to audience participation.

The Customer Collections Committee has an outstanding presentation for the joint session of the Customer Activities Group. William C. Washburn, credit manager, Equitable Gas Co., Pittsburgh, Pa., will present "Merchandising Credit is Important". His talk will contain an analysis of merchandising credit problems in the utility field and stress the increasing need for sound credit management.

"How Are Things" is the subject selected by Elliot S. Boardman, vice-president, Federal Reserve Bank of Boston, who will speak at a luncheon meeting of the Customer Collection Committee. His speech will center on today's economic trends and will culminate in a short discussion period. Following the luncheon, L. J. Hamilton, treasurer, Consumers Power Co., Jackson, Mich., will discuss the "Benefits of a Close Collection Follow-Up on Current Accounts", and L. J. Rauh, Consolidated Gas Electric Light and Power Company of Baltimore will present "Observations of Collection Costs", in which he will explain true expense items of any collection policy.

The credit manager of The East Ohio Gas Company, James E. Malone, will summarize the reasons why some customers do not pay bills. This interesting subject is entitled "Changes in Customers' Paying Habits" and will be presented at the Wednesday morning meeting of the committee.

You may be startled by the appearance of such topics as "Let's Get Mar-

ried" or "High Bill Headaches" among the program items and even entertain suspicions that a group of marriage counselors or physicians have usurped the conference facilities for a little meeting of their own. However, veteran delegates will immediately recognize the humorous spirit that identifies the meetings of the Customer Relations Committee. Although humorous in approach, we assure you that the results are in dead earnest.

"Let's Get Married!" presents the presumed conflict between Customer Accounting and Customer Relations interests. "Mr. Customer Accounting" will propose marriage to "Miss Customer Relations" (who, 'tis rumored, is somewhat reluctant). A justice of the peace will be present to moderate the problems that are bound to arise. We can't absolutely guarantee that you'll see a wedding, but we guarantee that you will come away greatly enlightened. Principals include L. J. Rauh, Consolidated Gas Electric Light and Power Company of Baltimore; Austin W. Merchant, Michigan Consolidated Gas Co., and H. R. Potts, Columbus and Southern Ohio Electric Company. Incidentally, this engagement will be one of the highlights of the joint meeting of the Customer Activities Group on Tuesday, April 13.

At another session of the Customer Relations Committee, a panel of eminent diagnosticians will prescribe a three-way cure for "High Bill Headaches". Vaccine samples and suggestions for preventative treatment of this common complaint will be generously dispensed for clinical use in your own home town. John C. Faris, Union Electric Co., will write the initial prescription. His white-coated colleagues will be recognized as G. S. Coates, Southern Counties Gas Co., W. H. Ferguson, Duquesne Light Co., R. F. McGlone, The East Ohio Gas Co., and G. E. Smith, Consolidated Edison Company of New York, Inc.

The National Conference of Gas and Electric Utility Accountants affords an opportunity to those in the utility industry to meet with others in their chosen profession to institute and renew valuable friendships; to exchange ideas and opinions that should prove of mutual interest and to acquaint themselves with modern developments and techniques. Also, several manufacturers are preparing displays of their products for exhibition at the conference and will have representatives present to explain their

function and suggest applications that will solve your problems and bottlenecks.

In addition, an invitation is extended to all ladies attending the conference to join in a very special program devised for them.

A feature of the program will be a

carefully conducted tour of the many old and historical spots in and around Boston. A luncheon will be served in one of the leading inns.

All ladies attending the conference are welcome to attend the evening banquet that is open to the delegates.

We are confident that the many advantages offered by this conference will prove a major attraction for an early and populous attendance.

You cannot afford to miss this three-day Spring Conference at the Hotel Statler in Boston, April 12-14 inclusive.

Pulsation exploration

(Continued from page 15)

proved successful and practical for the capacities and operating conditions for which they were designed but have been reported less successful when subjected to other than design conditions.

Restrictions consisting of a plate with single or multiple holes or perhaps merely a "pinched" valve placed between the offending pulsation producer and the meter conceivably might reduce the pulsation to the point where it is no longer serious. However, it appears that the determination of quantity of "pinching" or the optimum number and size of holes in a restrictive plate is largely trial and error at the present time.

One device for determining whether or not pulsation exists is the Beitler-Overbeck mechanical pulsometer (Fig. 5) used to determine the sum of the normal differential and the height of the peak of the pressure wave. Electronic devices have also been developed for detecting the presence of pulsation. In the mechanical device the reading from the instrument is compared with the differential indicated on the meter chart and from these two values a determination can be made which will indicate if the pulsation error is less than or greater than one percent.

This determination is made by the use of a curve (Fig. 6) which was established by tests using an experimental test set-up handling natural gas. The set-up consisted of two meters in series. One meter and the pulsometer were subjected to pulsation while the other meter had steady flow produced by considerable "pinching" of a plug cock placed between the two meters. The second meter thus gave true flow readings while the former gave erroneous readings and the extent of the error due to pulsation was determined. The line in Fig. 5 was drawn through the one-percent points which were determined by experiment.

While in former years most of the investigations regarding pulsation seem to have been largely of the "field" type,

some of the most recent studies have consisted of mathematical analyses of the nature of pulsation and a little experimental work of a laboratory nature has been carried on. Most of the recent experimental work has not dealt with natural gas but any conclusions which can be drawn from any studies of pulsation should be of interest and prove applicable to the natural gas industry. Nor has much recent experimental work been directed solely toward the solution of pulsation problems. Pulsation studies, however, have crept in and been incidental to other experimental work.

There is a general feeling that special attention should be given to each of the variables present in a meter subjected to pulsating flow such as quantity of flow, frequency of pulsation, amplitude of the pulsation wave, the wave form, the diameter ratio, the meter differential, and perhaps others. It would be determined which of these have a marked effect on the meter accuracy and which do not. Dr. Newman A. Hall of the University of Minnesota has begun a study of this type but because of shortage of finances for equipment and for help to conduct experimental work has not been able to produce the results he would like to. Dr. Hall feels that in time it might be possible to write a coefficient into the steady flow equation to correct for pulsation. He plans to work toward that goal.

Another study that could well be carried on in the laboratory, is the one which would check the one percent curve used with mechanical pulsometer and to establish the precise location of this curve in the region of low differentials. While the one percent curve for this instrument was determined in a set-up designed specifically for this study it was not possible to change all the variables and the instrument should be given a thorough check by changing all possible conditions. At the risk of being overly optimistic the statement is ventured that this instrument *might* be used for determining the magnitude of the pulsation error if sufficient studies were carried out with the instrument operating under

various frequencies, wave forms, amplitude, etc.

Some studies should be made with pulsating liquids. While the matter of pulsating liquids probably does not concern people who deal exclusively with natural gas, nevertheless, some laws governing pulsating flow may be discovered which could be carried over into pulsating gas flows. Actually tests made with liquids or vapors may be easier to conduct and the accuracy may be greater than tests conducted with gases since vapors (after being condensed) and liquids can be weighed to determine the true rates of flow.

Further studies for both gases and liquids should be undertaken with mechanical vibrations introduced into the piping system. One study of this nature was begun but had to be abandoned before completion. Whether or not enough research was done to justify any conclusions is not known at this time.

A feeling exists that eventually codes should be formulated which would define the maximum amount of pulsation permissible which would still permit accurate measurement with the aid of inferential meters. So far there exists only the feeling that measurement with primary elements should not be undertaken if pulsation is present and that pulsations can be suppressed by capacity and resistance placed between the source of pulsation and the meter. At present, no general rule seems to exist for determining just how much capacity or how much resistance should be introduced to suppress pulsation to the extent that it is no longer harmful.

While it is generally known that a critical pressure drop between the pulsating source and the meter will eliminate pulsation that is indeed an expensive way of eliminating the trouble and no doubt something less than a critical drop will suffice. Perhaps a research project might well be devoted to determine just how much of a pressure drop is actually necessary for various capacities, frequencies, wave forms, etc.

Research should be carried out to

check the validity of some of the theory which has been propounded from time to time. For instance, use has been suggested of the Strouhal number which relates orifice diameter, pulsation frequency, and flow velocity to determine if and when a meter is subjected to excessive pulsation. It may be that the data obtained by a pulsameter and calculated from the flow system can be substituted into the Strouhal number to determine if serious pulsation exists.

Further time probably could be well spent in additional study of the application of the Hodgson number to the design of volumes for absorbing pulsation. This number relates specific volume of the fluid, its pressure, the pressure drop between the pulsation source and the meter, pulsation frequency, the flow rate, and the volume in the system between the pulsation producer and the meter.

Scarcely a time goes by, when the subject of pulsation is mentioned, that someone does not suggest a device for putting an end, once and for all time, to pulsation. Some or perhaps all of the devices have merit but who is to say whether or not the ideas have any worth. The proof would come by test of these devices after they had been built. It seems unfortunate indeed that no designated places exist where ideas can be submitted for trial. If use could be made of institutions which have facilities for constructing and testing any and all devices which may be suggested, some effective device for eliminating pulsation may be produced for a very nominal expenditure of research funds. Incidentally, if knowledge exists of any device that has some merit as a pulsation damper it is urged that this knowledge be made known, particularly, if the device has had some

preliminary trial.

While so much effort and money have been spent to insure a thorough job of measuring when steady flow exists it is unfortunate indeed that so little pulsation can render inaccurate an otherwise accurate instrument. Certainly pulsation warrants most exhaustive research and most careful attention.

BIBLIOGRAPHY

"Pulsating—Flow Measurement—A Literature Survey" by Oppenheim and Chilton presented at the 1953 Annual Meeting of American Society of Mechanical Engineers contains 70 references related to pulsating flow. The paper discusses theory and conclusions drawn from much of the reference material. It is a most valuable paper for anyone interested in pulsation or wishing to conduct pulsation research. Oppenheim and Chilton have agreed to assist as much as possible anyone wishing to make a pulsation exploration.

Interconnected pipelines

(Continued from page 6)

fense agencies in World War II and the less hectic but nonetheless serious sessions during the Korean crisis, want to renew those activities. It may be said, as it has before, that the cooperative attitude of the gas industry as a whole in meeting national emergency problems was exemplary. Surely, preplanning for the maintenance of adequate service to installations vital to our national security needs no justification. All of the previous economic advantages discussed herein should be considered when planning for national defense. Conversely, when consideration is given to interconnections for economic purposes, national defense possibilities should not be overlooked.

It bears repeating that pipeline design data relative to interstate pipeline companies are available for inspection at FPC offices in Washington and the commission staff is always available to assist in any discussion of ideas for effectuating better service to the public through interconnections.

(6) *Experience of the Federal Power Commission under the Federal Power Act, Section 202.*

In preparation for this paper, I requested the commission's Bureau of Power to make available to me experience they have had with respect to the interconnection and coordination of electric utility systems under the authority of the commission contained in Section 202 of the Federal Power Act. The parallel of this experience with the possibilities and practices in the natural gas industry is enlightening although there are features peculiar to the electric industry not applicable to the natural gas industry. I am including as part of my printed remarks a portion of the statements submitted to me by the commission's Bureau of Power and believe they will be helpful in further illustrating the need for continued cooperative effort in dispatching the nation's natural gas through interconnected pipeline systems.

"The interconnection and coordination in the electric utility field has long been recognized as valuable means for obtain-

ing economic and operating benefits to the advantage of both consumers and investors.

"Under Section 202(a) of the Federal Power Act, the Commission is empowered and directed to encourage the voluntary interconnection and coordination of electric utility facilities for the purpose of assuring an abundant supply of electric energy with the greatest possible economy and with regard to the proper utilization of natural resources. In carrying out its responsibilities under this section of the Act, the Commission has taken various steps, as discussed below, to encourage the establishment of additional interconnections.

"While varying greatly in individual situations, the benefits attributable to interconnected operations of electric power systems generally fall in one or more of the following categories:

"(1) Savings in generating capacity made possible through a reduction in the amount of reserve capacity needed to provide for scheduled maintenance, for replacement of equipment in case of breakdown or emergency outage, and for unforeseen load growth.

"(2) Savings in generating capacity by taking advantage of diversity in load characteristics of the systems involved.

"(3) Reduction in production costs through shifting loads to the more efficient generating facilities.

"(4) Savings realized from differentials in fuel costs.

"(5) Greater flexibility in operation due to ability to utilize surplus capacity of the combined network.

"(6) Savings derived from scheduling additions of new capacity in such a way as to obviate temporary over-installation of generating capacity.

"(7) Makes feasible the installation of larger and more efficient generating units.

"(8) Where hydroelectric generation is involved, savings in capacity and operating costs may be realized from diversity in stream-flow characteristics and from more effective use of storage facilities.

"(9) Permits greater utilization of secondary and dump

energy from hydro installations, thus contributing to the conservation of fuel supplies.

"(10) Permits more complete development of hydro installations for carrying peak loads of short duration.

"(11) Provides a mutual measure of protection against fuel shortages and extraordinary operating hazards.

"In 1938 a report was prepared recommending a number of interconnections and other measures for strengthening transmission and power supply facilities in 15 war material centers. Most of the interconnections proposed at that time have now been accomplished.

"A plan for interconnecting large eastern load centers by means of a high voltage transmission grid was presented in a report prepared in cooperation with utility companies in 1941. This report showed the possibilities of establishing high capacity interconnections throughout the northeastern states and of extending this network as far west as Chicago and St. Louis. This plan was abandoned as a result of questions raised by the

utility industry concerning the economic feasibility of the proposed facilities, and a rapidly developing shortage of critical materials.

"A listing of 179 proposed interconnections was prepared by the Commission staff in November 1941. These interconnection possibilities were discussed with utility representatives at various times during World War II, and a review made in 1949 indicates that about 25 percent of the ties originally proposed were completed.

"Since World War II the Commission staff has studied a considerable number of potential interconnections between electric utility systems, and in cases where these studies indicate the proposed ties would be feasible from an engineering and economic standpoint, detailed reports have been submitted to the utilities involved. A few of the ties recommended in these reports have been constructed substantially as proposed by the staff, and in some cases alternative facilities have been established to accomplish the same purpose."

Air conditioning

(Continued from page 12)

Sixty-six percent of the homemakers interviewed reported that a change had been noticed in the general health of the family since living in their air conditioned home. All of these families rested better at night. In addition, ten percent of the families who did not notice any change in family health reported that they also rested better at night. Other benefits reported were:

Better appetites and eating habits	45%
Relief from hay fever or pollen allergies	32%
Fewer colds	23%
Health and comfort of baby improved	15%
Relief from asthma	11%

Additional benefits regarding health which were attributed to air conditioning were "nerves relaxed", "sinus relief", "arthritis relief", and "disappearance of heat sickness".

There were a few reports that air conditioning irritated certain conditions. Five families reported "more colds", three families with elderly people had "arthritis irritation", and one family "rheumatism trouble". "Hay fever was bothered" in another family. However, in all of these families, the homemaker reported that they rested better at night, and in almost all cases of irritation, other members of the same family were reported to benefit from air conditioning.

Medical expenses

Twenty-two percent of the homemakers reporting a change in family health due to air conditioning also reported that there had been a savings in doctor bills and medicine expenses. One family reported savings as high as \$200 a year and another \$150 a year.

Twenty-one percent of the families having a savings reported a *large* savings. Another 47 percent reported a *moderate* savings annually.

Care of the home

Some 83 percent of the homemakers interviewed reported they had noticed a difference in the household cleaning work required since their home was air conditioned. Ninety percent of these homemakers reported less time needed for dusting furniture. Other benefits from air conditioning were:

Less cleaning of walls and woodwork	71%
Less frequent cleaning of drapes, curtains, slip covers, rugs, and upholstery	70%
Less re-decorating work required	31%
Less use of domestic help	14%

Additional benefits regarding care and cleaning of the home which were attributed to air conditioning were "no mildew", "easier to keep domestic help", "no sweating walls", "no cobwebs", "less silver tarnish", and "fewer moths".

There were a few reports of increased cleaning. Ten homemakers reported that drapes located over or very near to air vents got dirty quickly. Six homemakers

reported "more dust", and three "more lint in the house". One reported "silver tarnished easier". However, each of the homemakers reporting an increased problem also reported at least one of the other benefits which decreased the household cleaning work.

Cleaning savings

Fifty-four percent of the homemakers reporting that they had noticed a difference in the household cleaning work required since their home was air conditioned also reported a savings in cleaning expenses. One family reported a savings of \$10 a week, another family \$300 a year, and another homemaker stated she saved \$250 a year. Five other homemakers reported savings which they could directly attribute to air conditioning of from \$50 to \$100 a year.

Twenty-six percent of the families having a savings reported *large* savings. Another 57 percent reported a *moderate* savings.

Eating habits

Each homemaker was asked whether there had been any change in the eating habits of the family because their home was air conditioned. Forty-nine percent reported that the family now ate more meals at home.

Fifty-eight percent of the homemakers reporting that the family now ate more meals at home because of air conditioning also reported that there had been a savings in eating expense in the summer time which could be attributed to air conditioned comfort at home.

One homemaker reported a savings of

\$200 a summer, another \$60 a month during the hot weather, and one family reported \$150 savings each summer.

Sixteen percent of the families having a savings reported a *large* savings. Another 46 percent reported a *moderate* savings.

Family recreation

Seventy-one percent of the homemakers reported that there had been a change in the recreation activities of the family since living in an air conditioned home. Eighty-six percent of these homemakers reported that more evenings were spent at home instead of going out during the summer. Other reasons given are listed below:

Fewer week-ends in the country	42%
Fewer air conditioned movies	41%
Fewer trips to parks and swimming pools	28%
More entertainment at home	19%
Family does not desire to leave home	8%

Savings in recreation

Of the homemakers who reported that there had been a change in the recreation activities of the family since living in an air conditioned home, 39 percent reported there had been a *decrease* in expenses for recreation. One homemaker reported \$200 saved during a summer, and another family reported \$5 a week saved.

Fourteen percent of the families having a savings reported a *large* savings. Another 43 percent reported a *moderate* savings. Seven homemakers reported that because of increased entertainment at home, recreation expenses have increased.

Change in vacations

Thirty-one percent of the homemakers reported that the way vacations are taken has changed since their home has been air conditioned. Seventy-three percent of these families stated that more of the vacation period was spent at home because of the air conditioned comfort there. Other reasons were:

Vacations no longer taken just to avoid the heat	66%
Vacations taken in winter rather than summer	43%
No vacations desired by the family	7%
Trips to avoid hay fever season not necessary	2%

Vacation savings

Fifty-eight percent of the homemakers reporting changes in vacations because of air conditioning also reported that there had been a savings in vacation expenses. One homemaker reported \$3000 a year saved, another \$1500 a year, and another family reported \$1000 a year. Four families reported savings from \$200 to \$500 a year.

Thirty-one percent of the families having a savings reported a *large* savings. Another 49 percent reported a *moderate* savings.

General evaluation

The homemaker was asked how important air conditioning is considered in her home. Sixty-six percent reported that air conditioning was considered *essential*. Thirty-two percent considered air conditioning *desirable*.

Each homemaker was asked whether her home was considered *more* or *less* valuable than a similar home *without* air conditioning. Eighty-two percent of the homemakers reported that air conditioning substantially increases the value of their home. Seventeen percent reported that air conditioning makes the home somewhat more valuable. Only two families reported that there was no difference. (None of the homemakers reported that the air conditioned home was of less value.)

Additional benefits

Homemakers reported some additional benefits from their gas all-year air conditioners. These are listed with the frequency of the comment indicated:

Outside noise eliminated because windows are kept closed	10
Plants grow better indoors	10
Family more compatible during summer	8
Homemaker able to bake and iron in comfort during summer	5
More ambition for entire family during summer	3
Fewer flies and bugs in home	3
No stale odors in the home	3
Basement dry all year	3
Furs do not need to be placed in special storage during summer	2
Social advantage	2
Even the dog likes it	1

Temperature setting

Each homemaker was asked at what temperature the thermostat was usually set in the *summer*. Fourteen of the an-

swers were settings a certain number of degrees below outside temperature. This information was not used. Of the 311 settings reported, following is a breakdown of temperature ranges:

9%	set the thermostat at 70 degrees or lower
55%	set the thermostat between 70 and 75 degrees
34%	set the thermostat between 75 and 80 degrees
2%	set the thermostat over 80 degrees.

Equipment

Ninety-four percent of the homemakers reported that regular service maintenance such as seasonal check-ups and filter changes was performed on their air conditioning equipment. Three percent did not know. Three percent did not have regular service maintenance on their equipment.

The homemaker was asked whether or not there had been any troubles with the operation of the air conditioner. Forty-seven percent reported that there had never been a service call other than for regular maintenance. Of the 53 percent who had troubles, 80 percent reported that the difficulty had been fixed to their complete satisfaction and 13 percent reported that the difficulty had been partially repaired. Seven percent reported that troubles had not been fixed (all of these were caused by air distribution difficulties or water problems).

Troubles reported were:

Minor service problems	36%
Air distribution	12%
Water troubles	10%
Noise in air distribution system	7%
Tower difficulties	6%
Controls	6%
Fan motor replaced	4%
Not cooling sufficiently	4%
Refrigeration unit replaced	2%
Non-condensibles in refrigeration unit	1%
Pilot outage	1%
Musty smell	1%
Other miscellaneous problems	2%
Not known	5%

The source of water for the conditioner was also reported by each homemaker. Fifty-seven percent of the conditioners used city water and 36 percent employed a cooling tower. The remainder used wells or some other source of water.

New A.G.A. members

Gas companies

The Cambridge Gas Co., Cambridge, Md.
(E. C. Burton, Jr., manager)
Inland Natural Gas Co. Ltd., Vancouver, B. C.
(John A. McMahon, vice president)
Kinston Gas Co., Kinston, N. C.
(Clifford B. Ewart, president)

Associate companies

The Buckeye Supply Co., Zanesville, Ohio
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Willard L. Morrison, Lake Forest, Ill.
(Willard L. Morrison, owner)

Manufacturer companies

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Don C. Benson, Texas Gas Transmission
Corp., Owensboro, Ky.

Ralph M. Bishop, Rochester Gas & Electric
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John R. Blum, Pacific Gas & Electric Co., San
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Corp., Owensboro, Ky.
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Corp., Rochester, N. Y.
Ralph W. Brookins, Southern Counties Gas
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Frank R. Brower, Consolidated Edison Co. of
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Jefferson City, Mo.
Robert C. Bryan, Natural Gas Pipeline Co. of
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Frank Bucaro, Peoples Gas Light & Coke Co.,
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David V. Buchanan, Consolidated Edison Co.
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D. O. Burdick, Southern Counties Gas Co.,
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Willard F. Butcher, Consolidated Edison Co.
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Co., Indio, Calif.
Fred A. Carman, Jr., Long Island Lighting
Co., Mineola, N. Y.
Elinor M. Casavecchia, Southern Counties Gas
Co., Los Angeles, Calif.
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Donald A. Cash, Southern Counties Gas Co.,
Santa Monica, Calif.
Lucien J. Cavagnet, Consolidated Edison Co.
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David B. Collier, Northwestern Utilities, Ltd.,
Edmonton, Alberta, Canada
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Co., Wausau, Wisc.
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ronto, Ont., Canada
Bruce W. Conover, South Jersey Gas Co., At-
lantic City, N. J.
Harlan J. Cooper, Rochester Gas & Electric
Corp., Hilton, N. Y.
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Robert C. Cowen, Clarksville Gas Dept.,
Clarksville, Tenn.
W. G. Cox, Southern California Gas Co.,
Inglewood, Calif.
Willard A. Crandall, Consolidated Edison Co.
of New York, Inc., New York, N. Y.
Raymond G. Crawford, Chase Brass & Copper
Co., Waterbury, Conn.
Earl B. Cutter, Jr., American Meter Co., Inc.,
Philadelphia, Pa.
William C. Day, Columbia Gas System Ser-
vice Corp., Columbus, Ohio
Jay De Boer, Michigan Consolidated Gas Co.,

Grand Rapids, Mich.
John DeLellis, Consolidated Edison Co. of
New York, Inc., New York, N. Y.
Edward L. DeMeritt, Rochester Gas & Elec-
tric Corp., Rochester, N. Y.
Frank Dilda, Gas Consumers Association, De-
troit, Mich.
Lester W. Dimon, Southern Counties Gas Co.,
Los Angeles, Calif.
Andrew J. Domagalski, Michigan Consoli-
dated Gas Co., Detroit, Mich.
Joseph A. Dourigan, Consolidated Edison Co.
of New York, Inc., New York, N. Y.
Thomas C. Duncan, Consolidated Edison Co.
of New York, Inc., New York, N. Y.
Cecil L. Dunn, Southern Counties Gas Co.,
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Thomas S. Dunstan, Consolidated Edison Co.
of New York, Inc., New York, N. Y.
Frederick G. Dutton, Southern Counties Gas
Co., Los Angeles, Calif.
Charles E. Eble, Consolidated Edison Co. of
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W. R. Edman, Jr., Southern Counties Gas Co.,
Los Angeles, Calif.
Lowell L. Elder, Columbia Gas System Service
Corp., Columbus, Ohio
Jack R. Elenbaas, Michigan Consolidated Gas
Co., Grand Rapids, Mich.
J. Robert Erikson, Lynn Gas & Electric Co.,
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Augustine E. Farese, Rochester Gas & Electric
Corp., Rochester, N. Y.
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cago, Ill.
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Eugene Findl, Southern California Gas Co.,
Los Angeles, Calif.
Walter B. Fisk, Consolidated Edison Co. of
New York, Inc., New York, N. Y.
Richard L. Fite, Jr., Lynn Gas & Electric Co.,
Lynn, Mass.
George L. Fleming, Koppers Co., Inc., Pitts-
burgh, Pa.
Lewis E. Forein, Southern Counties Gas Co.,
Los Angeles, Calif.
Charles W. Franklin, Consolidated Edison Co.
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F. E. Funke, Southern California Gas Co., Los
Angeles, Calif.
Jack F. Furrh, Venezuelan Atlantic Transmis-
sion Corp., Caracas, Venezuela
Marlan L. Gabel, Tampa Gas Co., Tampa, Fla.
Vergil S. Garnett, Interstate Natural Gas Co.,
Inc., Monroe, La.
Fred A. Giari, Southern California Gas Co.,
Los Angeles, Calif.
Henry F. Giblin, The Peoples Gas Light &
Coke Co., Chicago, Ill.
Kenneth G. Gilbertson, Wisconsin Fuel &
Light Co., Wausau, Wisc.
C. S. Goetting, Southern California Gas Co.,
Pasadena, Calif.
Frank C. Gordon, Consolidated Edison Co. of
New York, Inc., New York, N. Y.
Anatole R. Gruher, Consolidated Edison Co.
of New York, Inc., New York, N. Y.
Robert J. Gustafson, Rochester Gas & Electric
Corp., Rochester, N. Y.
Gerald R. Hadden, Consolidated Edison Co. of
New York, Inc., New York, N. Y.

(Continued on next page)

Gordon R. Hahn, Consolidated Edison Co. of New York, Inc., Astoria, L. I., N. Y.
 Arthur E. Hald, Consolidated Edison Co. of New York, Inc., New York, N. Y.
 Clifford E. Hall, Bowser, Inc., Incineration Div., Cairo, Ill.
 Louis R. Hampton, Providence Gas Co., Providence, R. I.
 Robert M. Harris, Texas Eastern Transmission Corp., Shreveport, La.
 A. J. Hartmann, Consolidated Edison Co. of New York, Inc., New York, N. Y.
 Elmer G. Hery, Consolidated Edison Co. of New York, Inc., New York, N. Y.
 Robert M. Hetherington, Iowa-Illinois Gas & Electric Co., Davenport, Iowa
 John H. Hirt, Solar Combustion Co., Los Angeles, Calif.
 Evert A. Hodges, San Diego Gas & Electric Co., San Diego, Calif.
 Fred C. Holbrook, M. M. Hedges Mfg. Co., Inc., Chattanooga, Tenn.
 Edward A. Holmberg, Consolidated Edison Co. of New York, Inc., New York, N. Y.
 J. F. Illick, Coast Counties Gas & Electric Co., Rodeo, Calif.
 L. E. Ingham, Texas Gas Transmission Corp., Owensboro, Ky.
 Domenico A. Ionata, Providence Gas Co., Providence, R. I.
 Paul W. James, Southern California Gas Co., Baldwin Park, Calif.
 John W. Jardine, Jr., South Jersey Gas Co., Atlantic City, N. J.
 William N. Jarvie, Rochester Gas & Electric Corp., Rochester, N. Y.
 R. Jones, Pacific Refiners, Ltd., Honolulu, Hawaii
 W. Jordan, Consolidated Edison Co. of New York, Inc., New York, N. Y.
 Byron C. Karzas, North Shore Gas Co., Waukegan, Ill.
 Max T. Keil, Consolidated Edison Co. of New York, Inc., New York, N. Y.
 Thomas R. Kelsh, Consolidated Edison Co. of New York, Inc., New York, N. Y.
 Ford Kennedy, Michigan Consolidated Gas Co., Detroit, Mich.
 Earl E. Kinne, Southern Counties Gas Co., Pomona, Calif.
 John Kirtley, Texas Gas Transmission Corp., Owensboro, Ky.
 William L. Kline, Southeastern Michigan Gas Co., Port Huron, Mich.
 Frank A. Knecht, Consolidated Gas Electric Light & Power Co. of Balt., Baltimore, Md.
 Harry Knecht, Consolidated Edison Co. of New York, Inc., New York, N. Y.

Mistaken identity

● Serviceman Bob Carmody of Eastern Division stepped out the back door of a house recently, where he had just completed a service call, when bam!—he was struck in the back of the head with a well aimed rock.

Then suddenly a little boy popped out of nowhere and apologetically blurted, "Gee, mister, I'm sorry I hit you; I thought you were the man who lives here."

—Social Gas News

Carl H. Knight, Consolidated Edison Co. of New York, Inc., New York, N. Y.
 George T. Koehler, Brooklyn Borough Gas Co., Brooklyn, N. Y.
 John W. Kushing, Lansing, Mich.
 Norman G. Lang, Wisconsin Fuel & Light Co., Manitowoc, Wis.
 Raymond J. Le Beau, Brooklyn Borough Gas Co., Brooklyn, N. Y.
 B. J. Lightfoot, Southern California Gas Co., Los Angeles, Calif.
 Patrick J. Lynch, Montana Power Co., Butte, Mont.
 Roger Lyon, Southern California Gas Co., Van Nuys, Calif.
 Robert J. McCaffrey, Michigan Consolidated Gas Co., Detroit, Mich.
 Theodore R. McCann, Rochester Gas & Electric Corp., Rochester, N. Y.
 J. S. McClure, California Research Corp., Richmond, Calif.
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 J. Eliot McCormack, Consolidated Edison Co. of New York, Inc., New York, N. Y.
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 Ralph Martinus, Michigan Consolidated Gas Co., Muskegon, Mich.
 Thomas Maxwell, Consolidated Edison Co. of New York, Inc., New York, N. Y.
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 Wesley C. Meytrott, Consolidated Edison Co. of New York, Inc., New York, N. Y.
 Gordon R. Milne, Consolidated Edison Co. of New York, Inc., New York, N. Y.
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 Walter C. Palmer, Michigan Consolidated Gas Co., Grand Rapids, Mich.
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 Vernon E. Rasch, United Gas Corp., Shreveport, La.
 Thomas R. Rhea, General Electric Co., Schenectady, N. Y.
 Raymond L. Rissler, Rochester Gas & Electric Corp., Rochester, N. Y.
 E. T. Robbins, Southern Counties Gas Co., Arcadia, Calif.
 N. Leo Robbins, Southern Counties Gas Co., Los Angeles, Calif.
 A. L. Roberts, Texas Gas Transmission Corp., Owensboro, Ky.
 George Robinson, Fall River Gas Works Co., Fall River, Mass.
 Harry P. Rogers, Jr., Consolidated Edison Co. of New York, Inc., New York, N. Y.
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 Richard H. Saunders, Rochester Gas & Electric Corp., Rochester, N. Y.
 Charles O. Schobel, Consolidated Gas Electric Light & Power Co., Baltimore, Md.
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 Louis A. Scofield, Consolidated Edison Co. of New York, Inc., New York, N. Y.
 P. T. Scollard, Southern California Gas Co., Los Angeles, Calif.
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 G. A. Seale, Consolidated Edison Co. of New York, Inc., New York, N. Y.
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 Roger G. Stillman, Caloric Stove Corp., Top-
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 Keith S. Taylor, Coast Counties Gas & Elec-
 tric Co., San Francisco, Calif.
 Neumon F. Taylor, Memphis Light, Gas &
 Water Div., Memphis, Tenn.
 Atherton Thomas, Consolidated Edison Co. of
 New York, Inc., New York, N. Y.
 Earl R. Thomas, Consolidated Edison Co. of
 New York, Inc., New York, N. Y.

Air conditioning survey

(Continued from page 11)

77 (5) 80 to 82 (1) 80 (8)
 85 (1) 88 (1) None (14)

19. How important does the home-
 maker consider the air conditioner
 in this home?

A. Essential 213 B. Desirable 104
 C. Not important 5 D. No opin-
 ion 3

20. Because of air conditioning, is their
 home considered more or less valu-
 able than a similar home without air
 conditioning?

A. Air conditioning substantially
 increases the value 267
 B. Air conditioning makes the
 home somewhat more valuable
 56

C. No difference 2
 D. The air conditioned home has
 less value None

21. Are there any other benefits from
 having an air conditioned home
 which have not been mentioned:

Outside noise eliminated since
 windows are kept closed 10
 Plants grow better 10
 Family more compatible 8
 Able to iron and bake in the sum-
 mer comfortably 5
 More ambition 3
 Fewer flies and bugs 3
 Basement always dry 3
 No stale odors in the home 3
 Social advantage 2
 Furs don't need special storage
 facilities during the summer 2
 Even the dog likes it 1

Multi-venting

(Continued from page 13)

supported by William Wallace Co., this
 firm agreed to design, build and guaran-
 tee vents which were installed in the
 eight-story apartment unit of the Bernal
 Buildings Project, San Francisco, Cali-
 fornia.

The apartment building was com-
 pleted last fall and is comprised of 64
 apartments. In October and November
 comprehensive tests were made to ob-
 serve operation of the installations. Re-
 sults of the field tests showed that multi-
 story vents of individual apartment heat-
 ing devices are practical if properly de-
 signed. It may be concluded that the
 vents in the Bernal Apartments are prop-
 erly designed and function efficiently.

It is not the purpose of this article to
 discuss engineering data of these tests;
 such detailed data will be analyzed and
 made available in industry channels as
 time permits. However, conclusions ob-
 tained from a review of the field in-
 spection report along with an elevation
 diagram of a typical tier vent arrange-

ment provide information on some im-
 portant elements of the vent design.

While the Bernal Apartments are
 eight stories, the calculations governing
 flue operation indicate that a similarly
 designed flue system with the same flue
 gas temperatures could handle a ten-
 story building without difficulty.

Effectiveness of a multi-story vent ar-
 rangement is dependent primarily on
 the amount of heat in the vent gases and
 the degree of conservation of that neces-
 sary heat by means of well-insulated flue
 passageways. When gases are elevated in
 a flue system substantial weights are
 moved. For example, the weight of the
 flue gases resulting from the combustion
 of one thousand cubic feet of natural gas
 in heating service is approximately 2,400
 pounds. Heat energy in the flue gases is
 the source of power needed to move such
 substantial weights.

It is apparent therefore that when
 multi-story vent systems are planned,
 considerable care should be taken to en-
 gineer the vent designs after acquiring
 data on the characteristics of the equip-
 ment to be vented. This is important



1954

MARCH

- 1-5 •American Society for Testing Ma-
 terials, Shoreham Hotel, Washing-
 ton, D. C.
- 4-5 •A. G. A. Gas Supply, Transmission
 and Storage Conference, New Or-
 leans, La.
- 15-17 •Mid-West Gas Association, Fort
 Des Moines Hotel, Des Moines
- 25-26 •New England Gas Association, Hotel
 Statler, Boston, Mass.
- 25-26 •Oklahoma Utilities Association,
 Biltmore Hotel, Oklahoma City
- 29 •INGAA Public Information Work-
 shop Conference, Roosevelt Hotel,
 New Orleans, La.

APRIL

- 12-14 •A. G. A. Sales Conference on In-
 dustrial and Commercial Gas,
 Edgewater Beach Hotel, Chicago
- 12-14 •National Conference of Electric and
 Gas Utility Accountants, Hotel Stat-
 ler, Boston, Mass.
- 13-15 •Oklahoma Utilities Association,
 Southwestern Gas Measurement
 Short Course, University of Okla-
 homa, Norman, Okla.
- 15-16 •Sixth National Personnel Confer-
 ence of the Gas Industry, Edgewater
 Beach Hotel, Chicago, Ill.
- 19-20 •A. G. A. Eastern Natural Gas Re-
 gional Sales Conference, William
 Penn Hotel, Pittsburgh, Pa.
- 19-21 •A. G. A. National Purchasing and
 Stores Conference, Henry Grady Ho-
 tel, Atlanta, Ga.
- 20-23 •A. G. A. Distribution Motor Ve-
 hicles and Corrosion Conference,
 Mount Royal Hotel, Montreal
- 22-23 •Indiana Gas Association, French
 Lick Springs Hotel, French Lick
- 26-28 •A. G. A. Mid-West Regional Gas
 Sales Conference, Edgewater Beach
 Hotel, Chicago, Ill.
- 26-28 •Southern Gas Association, Annual
 Convention, Houston, Texas

MAY

- 9-12 •Liquefied Petroleum Gas Associa-
 tion, Annual Convention, Conrad
 Hilton Hotel, Chicago, Ill.
- Week of May 10 •A. G. A. Commercial
 Gas School, Chicago, Ill.
- 10-14 •National Restaurant Convention
 and Exposition, Navy Pier, Chicago,
 Ill. (A. G. A. will exhibit)
- 13-14 •Public Utilities Advertising Associa-
 tion, Hotel Statler, Boston, Mass.
- 17-21 •National Fire Protection Associa-
 tion, Statler Hotel, Washington,
 D. C.
- 18-20 •Pennsylvania Gas Association, An-
 nual Convention, Pocono Manor, Pa.
- 19-21 •Gas Appliance Manufacturers As-
 sociation, Annual Meeting, The
 Drake, Chicago, Ill.
- 24-26 •A. G. A. Chemical, Engineering
 and Manufactured Gas Production
 Conference, Pittsburgh, Pa.

Personnel service

SERVICES OFFERED

Heating Supervisor or Salesman—Gas Heating Salesman, sixteen years experience with natural gas company would like position as Heating Supervisor or Salesman. Will locate anywhere. Further information on request. 1766

Mechanical Draftsman—Young man with five years of diversified experience in mechanical, electrical field would like employment in mechanical drafting line. Excellent school, employment and personal references can be presented. More interested in chance of advancement and security than starting salary. (27) 1767.

Safety Director—Twelve years' experience, including Director of Safety for three years at large Midwest Gas Utility. Wide knowledge of natural, manufactured and LP-Gas operations. Also well acquainted with fleet operations. 1768.

Manufacturers' Representative—since 1938 wants gas appliance line for California headquarters Los Angeles. Residential, commercial and industrial experience. 1769.

Pilot—Desires position, executive pilot or pipeline patrol. ATR DC3, DC4, DC6, C46. Twenty thousand hours—no accidents. Sixteen years Captain major airline. Can locate anywhere. References furnished. Single. (46) 1770.

Sales and/or Sales Engineer—Five years with leading firm of utilities management consultants, working at top or near top level with gas utilities in East and Southeast. Broad and specific knowledge all types gas burning equipment. Work well with people, have addressed meetings, heavy end responsibility. Wish to translate background into sales for manufacturer selling to utilities. Will relocate and travel. Married. (32) 1771.

Engineer—Desires change to challenging new job requiring rounded engineering experience in transmission and distribution of natural gas. B.S. degree, registered professional engineer, 18 years field and office experience. Will consider foreign employment. 1772.

POSITIONS OPEN

Gas Distribution Superintendent—Experienced distribution superintendent for manufactured gas system located in Southwestern Florida.

Property has 26,000 consumers. Superintendent to take charge of construction and maintenance of mains and services, operation of meter shop and customers service work. All replies treated with strictest confidence. 0717

Research Aide—To assist in supervision of industry program. Immediate opening New York City for graduate engineer 30-40 years age, personable, ability to handle people, preferably with at least five years experience in gas utility, and familiar with natural gas recovery and transmission operations. Salary commensurate with ability, good opportunity for advancement. 0718

Street Department Superintendent—Natural Gas company located in the Middle West has open distribution experience. However, principal ing for graduate engineer to take charge of street department construction, operation and maintenance. Salary commensurate with ability and experience. Replies will be confidential. 0719.

Distribution Superintendent—Growing natural gas company located in the Middle West seeking the services of a graduate engineer who has had transmission and distribution experience with construction, operation and maintenance of underground structures as well as having first-hand knowledge of service department operation. Replies will be confidential. 0720.

Sales Engineer—For home office of prominent midwestern industrial burner manufacturer. Sales correspondence, promotion, advertising with some traveling. Excellent opportunity with established firm expanding sales and new products. Submit resume of education, experience, history, and ambitions which will be held in strictest confidence. 0721.

Project Engineer—To develop automatic gas control valves for well known midwest manufacturer. Three to five years' experience in control design and application required. Please supply resume of education, experience, earnings, objectives. Replies held in confidence. 0723.

Plant Superintendent—Connecticut utility requires experienced gas production man capable of taking over as superintendent of plant which produces either propane air gas or high Btu oil gas supplementing natural gas supply. Prefer under 45 with technical background and

distribution experience. However, principal qualification is successful supervisory experience in production. For properly qualified man this is a permanent, pleasant, and well paid position. 0724.

Distribution Engineer—Central Canadian company, about to embark on expanding program to distribute natural gas and to convert present manufacturing facilities, will shortly require services of competent distribution engineer experienced in natural gas distribution, design and installation, gas conditioning for manufactured system, conversion, etc. Salary commensurate with experience and ability. Submit detailed resume of background experience and salary requirements, which will be held in strict confidence. 0725.

Public Utility Engineer—Large, long established natural gas company in West has opening for experienced senior staff engineer, who under the management can plan and supervise preparation of regulatory and rate matters, personally testify before commissions and assist the management in problems of utility operations. Essential that applicant understand gas distribution and transmission operations, have a comprehensive knowledge of public utility requirements and experience in processing matters before commissions or public bodies. Position is permanent and salary open. Replies confidential with executive head of company. 0726.

Gas Engineer—For large manufactured utility, conversion experience preferred. Must have thorough knowledge of production and distribution systems. Salary commensurate with ability and experience. Submit detailed resume of background experience, and salary requirements, which will be treated with utmost confidence. 0727.

Gas Engineer—For progressive natural gas utility located in the Middle West with over 12,000 consumers. Wonderful opportunity for college graduate with five to ten years experience. Permanent position with eventual advancements to an executive and official position with our company for the right man. Submit experience, education, age, personal particulars and salary expectations. All replies treated confidential. 0729.

because various types of equipment differ considerably as to their flue gas temperatures.

For example, it is well established that the flue gas temperatures of water heaters are considerably lower than the flue gas temperatures of vented recessed wall heaters, such as those in the Bernal Apartments. Therefore the heights at which water heaters can be successfully vented is lessened. In the Bernal Apartments hot water is supplied from a central water heating unit.

Another important element in design is to avoid the possibility of flue gases from one apartment back-flowing into another apartment. In the Bernal Apartment design there is sufficient rise in the individual vents to insure satisfactory discharge to the main stack without aid from the venting power in the main stack. This design provides proper venting of each unit without dependence on the operation of any other unit. It

practically precludes the possibility of reverse flow from the common stack.

This bold venture in multi-story individual apartment venting is an important step in reducing the cost of multi-story housing. It is also an important contribution to possible future markets for gas appliances and gas.

American Gas Association's venting research program is proceeding by thorough studies and laboratory testing of theoretical conclusions. Efforts of cooperating industry members, such as this example, help to speed the day when venting arrangements for the gas industry's products will contribute substantially to satisfactory customer service.

Scientific modernization of the old-time chimney has for many years lagged far behind the needs of modern dwelling conditions. Correction of that situation will be a major step forward in the industry's progress.

Chuckle at this!

● A new wrinkle in the way of competition has developed in TVA territory.

In Johnson City where natural gas has been in use several weeks, one of Volunteer Natural Gas Company's customers telephoned the television service man when the antenna became disconnected at the top of the house. As the service man was adjusting the set he inquired if natural gas was being used in the house. Upon being told that natural gas was in use, the service man advised that the natural gas was affecting the television set. In support of his claim, he pointed to some smudges where a previous service man had replaced the television tube. His contention was that the natural gas was causing soot inside the television set.

Gas company employees received a hearty chuckle from this incident. We wonder, however, what kind of wrinkle competition will attempt next. They must be worried about natural gas to go to such extremes!—H. W. Gee, president, Volunteer Natural Gas Company.

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